

MSE
372 erschienene Hereon-Publikationen 2021
Quelle: Web of Science (Thomson Reuters) und Scopus (Elsevier)

No.	Title	Authors	Source title	Volume	Issue	Page start	Page end	Art. No.	Year	Journal Impact Factor	DOI	Open Access	HGF-Program
1	Compression behaviour of wire + arc additive manufactured structures	Abbaszadeh M., Ventzke V., Neto L., Riekehr S., Martina F., Kashaev N., Hönnige J., Williams S., Klusemann B.	Metals	11	6			877	2021	2.351	10.3390/met11060877	Gold	MSE
2	Fabrication and function of polymer membranes	Abetz, V.; Brinkmann, T.; Sözbilir, M.	Chemistry Teacher International	3	2	141	154		2021	Scopus	10.1515/cti-2020-0023	Hybrid	MSE
3	Constant potential simulations on a mesh	Ahrens-Iwers L.J.V., Meißner R.H.	Journal of Chemical Physics	155	10			104104	2021	3.488	10.1063/5.0063381	Hybrid	MSE
4	Tube drawing with tilted die: Texture, dislocation density and mechanical properties	Al-Hamdany N., Salih M.Z., Palkowski H., Carradò A., Gan W., Schell N., Brokmeier H.-G.	Metals	11	4			638	2021	2.351	10.3390/met11040638	Gold	MSE, MML
5	Gas Transport Properties of the Metal-Organic Framework (MOF)-Assisted Polymer of Intrinsic Microporosity (PIM-1) Thin-Film Composite Membranes	Aliyev E., Warfsmann J., Tokay B., Shishatskiy S., Lee Y.-J., Lillepaerg J., Champness N.R., Filiz V.	ACS Sustainable Chemistry and Engineering	9	2	684	694		2021	8.198	10.1021/acssuschemeng.0c06297	Green	MSE
6	Microstructure-mechanical properties and application of magnesium alloys	Al-Samman T., Letzig D., Yi S.	Metals	11	12			1958	2021	2.351	10.3390/met11121958	Gold	MSE
7	Microengineered Hollow Graphene Tube Systems Generate Conductive Hydrogels with Extremely Low Filler Concentration	Arndt C., Hauck M., Wacker I., Zeller-Plumhoff B., Rasch F., Taale M., Nia A.S., Feng X., Adelung R., Schröder R.R., Schütt F., Selhuber-Unkel C.	Nano Letters	21	8	3690	3697		2021	11.189	10.1021/acs.nanolett.0c04375	Hybrid	MSE, MML
8	The deal.II Library, Version 9.3	Arndt D., Bangerth W., Blais B., Fehling M., Gassmüller R., Heister T., Heltai L., Köcher U., Kronbichler M., Maier M., Munch P., Pelteret J.-P., Proell S., Simon K., Turcksin B., Wells D., Zhang J.	Journal of Numerical Mathematics						2021	3.778	10.1515/jnma-2021-0081	Closed	MSE
9	High Hydrogen Mobility in an Amide-Borohydride Compound Studied by Quasielastic Neutron Scattering	Aslan N., Gizer G., Pistidda C., Dornheim M., Müller M., Busch S., Lohstroh W.	Advanced Engineering Materials	23	11			2100620	2021	3.862	10.1002/adem.202100620	Hybrid / Deal	MSE, MML
10	Bio-inspired and computer-supported design of modulated shape changes in polymer materials	Bäckemo J., Liu Y., Lendlein A.	MRS Communications	11	4	462	469		2021	2.566	10.1557/s43579-021-00056-6	Hybrid / Deal	MSE
11	The Impact of Redox, Hydrolysis and Dehydration Chemistry on the Structural and Magnetic Properties of Magnetoferritin Prepared in Variable Thermal Conditions	Balejčikova, L.; Saks, K.; Kovac, J.; Martel, A.; Garamus, V.M.; Avdeev, M.V.; Petrenko, V.I.; Almasy, L.; Kopcansky, P.	Molecules	26	22			6960	2021	4.588	10.3390/molecules26226960	Gold	MSE, MML

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12	Enzymatically Triggered Jack-in-the-Box-like Hydrogels	Balk M., Behl M., Nöchel U., Lendlein A.	ACS Applied Materials and Interfaces	13	7	8095	8101		2021	9.229	10.1021/acsami.1c00466	Closed	MSE
13	Scaling the U-net: Segmentation of biodegradable bone implants in high-resolution synchrotron microtomogram	Baltruschat, H. Ćwieka, D. Krüger, B. Zeller-Plumhoff, F. Schlünzen, R. Willumeit-Römer, J. Moosmann, P. Heuser	Scientific Reports	11				24237	2021	4.389	10.1038/s41598-021-03542-y	Gold	MSE, MT
14	SiO ₂ -TiO ₂ Binary Aerogels: A Small-Angle Scattering Study	Baranchikov A.E., Kopitsa G.P., Yorov K.E., Sipyagina N.A., Lermontov S.A., Pavlova A.A., Kottsov S.Y., Garamus V.M., Ryukhtin V., Ivanov V.K.	Russian Journal of Inorganic Chemistry	66	6	874	882		2021	1.312	10.1134/S003602362106005X	Green	MSE, MML
15	Massive Left Atrial Thrombus in a Patient With Left Atrial Appendage Closure	Barbieri F., Abdelwahed Y.S., Landmesser U., Reinthaler M.	JACC Cardiovascular Interventions	14	24	E333	E334		2021	11.195	10.1016/j.jcin.2021.09.025	Closed	MSE
16	Combined transcatheter treatment of severe mitral regurgitation and secundum atrial septal defect in an inoperable patient: a case report	Barbieri F., Landmesser U., Kasner M., Reinthaler M.	European Heart Journal - Case Reports	5	12			ytab492	2021	Scopus	10.1093/ehjcr/ytab492	Gold	MSE
17	Percutaneous edge-to-edge tricuspid valve repair in a patient with cor triatriatum dexter: A case report	Barbieri F., Schröder M., Beyhoff N., Landmesser U., Reinthaler M., Kasner M.	Journal of Cardiovascular Development and Disease	8	9			111	2021	3.948	10.3390/jcdd8090111	Gold	MSE
18	Interface-Mediated Twinning-Induced Plasticity in a Fine Hexagonal Microstructure Generated by Additive Manufacturing	Barriobero-Vila, P. ; Vallejos, J. M. ; Gussone, J. ; Haubrich, J. ; Kelm, K. ; Stark, A. ; Schell, N. ; Requena, G.	Advanced materials			1	8	2105096	2021	30.849	10.1002/adma.202105096	Hybrid	MSE, MML
19	Deformation kinetics of a TRIP steel determined by in situ high-energy synchrotron x-ray diffraction	Barriobero-Vila, P., Jerez-Mesa, R., Guitar, A., Gavaldà-Diaz, O., Travieso-Rodríguez, J.A., Stark, A., Schell, N., Llumà, J., Fargas, G., Mateo, A., Roa, J.J.	Acta Materialia	20		1	10	101251	2021	8.203	10.1016/j.mta.2021.101251	Closed	MSE, MML
20	Computational modeling of degradation process of biodegradable magnesium biomaterials	Barzegari M., Mei D., Lamaka S.V., Geris L.	Corrosion Science	190				109674	2021	7.205	10.1016/j.corsci.2021.109674	Hybrid	MSE
21	Cactus-inspired design principles for soft robotics based on 3D printed hydrogel-elastomer systems	Bastola A.K., Rodríguez N., Behl M., Soffiatti P., Rowe N.P., Lendlein A.	Materials and Design	202				109515	2021	7.991	10.1016/j.matdes.2021.109515	Gold	MSE

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22	Structural performance of a climbing cactus: Making the most of softness	Bastola A.K., Soffiatti P., Behl M., Lendlein A., Rowe N.P.	Journal of the Royal Society Interface	18	178			202140	2021	4.118	10.1098/rsif.2021.0040	Hybrid	MSE
23	High-Throughput and Combinatorial Approaches for the Development of Multifunctional Polymers	Baudis S., Behl M.	Macromolecular Rapid Communications					2100400	2021	5.734	10.1002/marc.202100400	Hybrid / Deal	MSE
24	Phase Morphology of Multiblock Copolymers Differing in Sequence of Blocks	Behl M., Balk M., Mansfeld U., Lendlein A.	Macromolecular Materials and Engineering	306	3			2000672	2021	4.367	10.1002/mame.202000672	Hybrid / Deal	MSE
25	Percolation transitions in pyrochlore: Radiation-damage and thermally induced structural reorganization	Beirau T, Huber N	Applied Physics Letters	119	13				2021	3.791	10.1063/5.0068685	Hybrid	MSE
26	Albumin-Hyaluronan Interactions: Influence of Ionic Composition Probed by Molecular Dynamics	Beldowski, P., Przybylek, M., Raczyński, P., Dedinaite, A., Gorny, K., Wieland, D.C.F., Dendzik, Z., Sionkowska, A., Claesson, P.M.	International Journal of Molecular Science	22	22			12360	2021	6.132	10.3390/ijms222212360	Gold	MSE
27	New concepts of extrusion dies to reduce the anisotropy of extruded profiles by means of additive manufacturing	Ben Khalifa N., Isakovic J., Bohlen J.	CIRP Annals	70	1	231	234		2021	3.916	10.1016/j.cirp.2021.04.006	Closed	MSE
28	Deformation and Anchoring of AA 2024-T3 rivets within thin printed circuit boards	Boas M.C.F.A.V., Rodrigues C.F., Blaga L.A., dos Santos J.F., Klusemann B.	Esaform					4327	2021	Scopus	10.25518/esaform21.4327	Gold	MSE
29	Experimental and numerical thermo-mechanical analysis of wire-based laser metal deposition of Al-Mg alloys	Bock F.E., Herrnring J., Froend M., Enz J., Kashaev N., Klusemann B.	Journal of Manufacturing Processes	64		982	995		2021	5.010	10.1016/j.jmapro.2021.02.016	Hybrid	MSE
30	Hybrid modelling by machine learning corrections of analytical model predictions towards high-fidelity simulation solutions	Bock F.E., Keller S., Huber N., Klusemann B.	Materials	14	8			1883	2021	3.623	10.3390/ma14081883	Gold	MSE
31	Evaluation of mechanical property predictions of refill Friction Stir Spot Welding joints via machine learning regression analyses on DoE data	Bock F.E., Paulsen T., Brkovic N., Rieckmann L., Kroeger D., Wolgast D., Zander P., Suhudding U.F.H., dos Santos J.F., Klusemann B.	Esaform					2589	2021	Scopus	10.25518/esaform21.2589	Gold	MSE
32	Weak adhesion detection – Enhancing the analysis of vibroacoustic modulation by machine learning	Boll B., Willmann E., Fiedler B., Meißner R.H.	Composite Structures	273				114233	2021	5.407	10.1016/j.compstruct.2021.114233	Hybrid	MSE

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33	Suppression of Hydrogen Evolution in Acidic Electrolytes by Electrochemical CO ₂ Reduction	Bondue C.J., Graf M., Goyal A., Koper M.T.M.	Journal of the American Chemical Society	143	1	279	285		2021	15.419	10.1021/jacs.0c10397	Hybrid	MSE
34	Constitutive and fracture behavior of ultra-strong supercrystalline nanocomposites	Bor B., Giuntini D., Domènech B., Plunkett A., Kampferbeck M., Vossmeier T., Weller H., Scheider I., Schneider G.A.	Applied Physics Reviews	8	3			31414	2021	19.162	10.1063/5.0056616	Hybrid	MSE
35	Hydrothermal aging of friction riveted thermoplastic composite joints for aircraft applications	Borba N.Z., dos Santos J.F., Amancio-Filho S.T.	Composite Structures	255				112871	2021	5.407	10.1016/j.compstruct.2020.112871	Hybrid	MSE
36	Influence of LDH conversion coatings on the adhesion and corrosion protection of friction spot-joined AA2024-T3/CF-PPS	Bouali A.C., André N.M., Silva Campos M.R., Serdechnova M., dos Santos J.F., Amancio-Filho S.T., Zheludkevich M.L.	Journal of Materials Science and Technology	67		197	210		2021	8.067	10.1016/j.jmst.2020.06.038	Closed	MSE
37	Mechanism of LDH Direct Growth on Aluminum Alloy Surface: A Kinetic and Morphological Approach	Bouali A.C., Iuzviuk M.H., Serdechnova M., Yasakau K.A., Drozdenko D., Lutz A., Fekete K., Dovzhenko G., Wieland D.C.F., Terryn H., Ferreira M.G.S., Zobkalo I.A., Zheludkevich M.L.	Journal of Physical Chemistry C	125	21	11687	11701		2021	4.126	10.1021/acs.jpcc.1c02281	Closed	MSE, MML
38	Global Sensitivity Analysis of a Homogenized Constrained Mixture Model of Arterial Growth and Remodeling	Brandstaeter S., Fuchs S.L., Biehler J., Aydin R.C., Wall W.A., Cyron C.J.	Journal of Elasticity	145		191	221		2021	2.085	10.1007/s10659-021-09833-9	Hybrid / Deal	MSE
39	Investigation of the Side Chain Effect on Gas and Water Vapor Transport Properties of Anthracene-Maleimide Based Polymers of Intrinsic Microporosity	Caliskan E., Shishatskiy S., Neumann S., Abetz V., Filiz V.	Polymers	14	1	119			2021	4.329	10.3390/polym14010119	Gold	MSE
40	Corrosion-induced mechanical properties degradation of Al-Cu-Li (2198-T351) aluminium alloy and the role of side-surface cracks	Charalampidou C., Dietzel W., Zheludkevich M., Kourkoulis S.K., Alexopoulos N.D.	Corrosion Science	183				109330	2021	7.205	10.1016/j.corsci.2021.109330	Closed	MSE
41	Corrosion behavior of extruded AM60-AlN metal matrix nanocomposite and AM60 alloy exposed to simulated acid rain environment	Chávez L., Veleva L., Feliu S., Jr., Giannopoulou D., Dieringa H.	Metals	11	6			990	2021	2.351	10.3390/met11060990	Gold	MSE
42	Homogenization of the interfacial bonding of compound-cast AA7075/6060 bilayer billets by co-extrusion	Chen H., Giannopoulou D., Groß T., Isakovic J., Mittler T., Volk W., Khalifa N.B.	International Journal of Material Forming	14	5	1109	1119		2021	2.028	10.1007/s12289-021-01626-8	Hybrid	MSE

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43	Co-Extrusion of Compound-Cast AA7075/6060 Bilayer Billets at Various Temperatures	Chen H., Giannopoulou D., Groß T., Mittler T., Isakovic J., Volk W., Ben Khalifa N.	Minerals, Metals and Materials Series			993	1001		2021	Scopus	10.1007/978-3-030-75381-8_83	Closed	MSE
44	Evaluation of the biodegradation product layer on Mg-IZn alloy during dynamical strain	Chen L., Guo C., Blawert C., Yang J., Chen D., Wang X., Yu Z., Zheludkevich M.L., Li W.	Journal of Magnesium and Alloys	9	5	1820	1833		2021	10.088	10.1016/j.jjma.2021.07.002	Gold	MSE
45	Comparing medium pressure dielectric barrier discharge (DBD) plasmas and classic methods of surface cleaning/activation of pure Mg for biomedical applications	Cheng L., Ghobeira R., Cools P., Luthringer B., Asadian M., De Geyter N., Liu Z., Yan K., Morent R.	Surface and Coatings Technology	410				126934	2021	4.158	10.1016/j.surfcoat.2021.126934	Closed	MSE
46	Empowering materials processing and performance from data and AI	Chinesta F., Cueto E., Klusemann B.	Materials	14	16			4409	2021	3.623	10.3390/ma14164409	Gold	MSE
47	Effect of the gap width in AZ31 magnesium alloy joints obtained by friction stir welding	Chiuzuli F.R., Batistao B.F., Bergmann L.A., de Alcantara N.G., dos Santos J.F., Klusemann B., Gargarella P.	Journal of Materials Research and Technology	15		5297	5306		2021	5.039	10.1016/j.jmrt.2021.10.115	Gold	MSE
48	Chemical heterogeneities in tungsten containing TiAl alloys processed by powder metallurgy	Couret A., Allen M., Rackel M.W., Galy B., Monchoux J.-P., Güther V., Pyczak F., Sallot P., Thomas M.	Materialia	18				101147	2021	Scopus	10.1016/j.mtla.2021.101147	Closed	MSE
49	Size Effects of Brittle Particles in Aerosol Deposition—Molecular Dynamics Simulation	Daneshian B., Gaertner F., Assadi H., Hoeche D., Weber W., Klassen T.	Journal of Thermal Spray Technology	30	3	503	522		2021	2.757	10.1007/s11666-020-01149-9	Hybrid	MSE
50	Wear and corrosion behavior of clay containing coating on AM 50 magnesium alloy produced by aluminate-based plasma electrolytic oxidation	Davoodi F., Atapour M., Blawert C., Zheludkevich M.	Transactions of Nonferrous Metals Society of China (English Edition)	31	12	3719	3738		2021	2.917	10.1016/s1003-6326(21)65759-X	Hybrid	MSE
51	Computational study of the geometric properties governing the linear mechanical behavior of fiber networks	Davoodi Kermani I., Schmitter M., Eichinger J.F., Aydin R.C., Cyron C.J.	Computational Materials Science	199				110711	2021	3.300	10.1016/j.commat.2021.110711	Hybrid	MSE
52	Fundamental hydrogen storage properties of TiFe-alloy with partial substitution of Fe by Ti and Mn	Dematteis E.M., Dreistadt D.M., Capurso G., Jepsen J., Cuevas F., Latroche M.	Journal of Alloys and Compounds	874				159925	2021	5.316	10.1016/j.jallcom.2021.159925	Closed	MSE

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53	Approaching "stainless magnesium" by Ca micro-alloying	Deng M., Wang L., Höche D., Lamaka S.V., Wang C., Snihirova D., Jin Y., Zhang Y., Zheludkevich M.L.	Materials Horizons	8	2	589	596		2021	13.266	10.1039/d0mh01380c	Closed	MSE
54	High-energy and durable aqueous magnesium batteries: Recent advances and perspectives	Deng M., Wang L., Vaghefinazari B., Xu W., Feiler C., Lamaka S.V., Höche D., Zheludkevich M.L., Snihirova D.	Energy Storage Materials	43		238	247		2021	17.789	10.1016/j.ensm.2021.09.008	Closed	MSE
55	Polydopamine-based biofunctional substrate coating promotes mesenchymal stem cell migration	Deng Z., Wang W., Xu X., Ma N., Lendlein A.	MRS Advances	6	31	739	744		2021	Scopus	10.1557/s43580-021-00091-4	Hybrid / Deal	MSE
56	Biofunction of Polydopamine Coating in Stem Cell Culture	Deng Z., Wang W., Xu X., Nie Y., Liu Y., Gould O.E.C., Ma N., Lendlein A.	ACS Applied Materials and Interfaces	13	9	10748	10759		2021	9.229	10.1021/acsami.0c22565	Closed	MSE
57	How water wets and self-hydrophilizes nanopatterns of physisorbed hydrocarbons	Díaz D., Nickel O., Moraga N., Catalán R.E., Retamal M.J., Zelada H., Cisternas M., Meißner R., Huber P., Corrales T.P., Volkmann U.G.	Journal of Colloid and Interface Science	606		57	66		2021	8.128	10.1016/j.jcis.2021.07.121	Closed	MSE
58	Editorial: Latest Developments in the Field of Magnesium Alloys and Their Applications	Dieringa H., StJohn D., Pérez Prado M.T., Kainer K.U.	Frontiers in Materials	8				726297	2021	3.515	10.3389/fmats.2021.726297	Gold	MSE
59	Solid-solid phase transformations and their kinetics in ti-al-nb alloys	Distl, B., Hauschildt, K., Pyczak, F., Stein, F.	Metals	11	12				2021	Scopus	10.3390/met11121991	Gold	MSE, MML
60	Surface Photovoltage Spectroscopy over Wide Time Domains for Semiconductors with Ultrawide Bandgap: Example of Gallium Oxide	Dittrich T., Fengler S., Nickel N.	Physica Status Solidi (A) Applications and Materials Science	218	18			2100167	2021	1.981	10.1002/pssa.202100167	Hybrid	MSE
61	Mechanical degradation estimation of thermosets by peak shift assessment: General approach using infrared spectroscopy	Doblies A., Feiler C., Würger T., Schill E., Meißner R.H., Fiedler B.	Polymer	221				123585	2021	4.430	10.1016/j.polymer.2021.123585	Closed	MSE
62	The slip activity during the transition from elastic to plastic tensile deformation of the Mg-Al-Mn sheet	Dobroň P., Drozdenko D., Fekete K., Knapik M., Bohlen J., Chmelik F.	Journal of Magnesium and Alloys	9	3	1057	1067		2021	10.088	10.1016/j.jma.2020.12.010	Gold	MSE

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63	A Diazirine-Modified Membrane Lipid to Study Peptide/Lipid Interactions – Chances and Challenges	Dorner J., Korn P., Gruhle K., Ramsbeck D., Garamus V.M., Lilie H., Meister A., Schwiager C., Ihling C., Sinz A., Drescher S.	Chemistry – A European Journal						2021	Scopus	10.1002/chem.202102048	Hybrid	MSE, MML
64	Bio-instructive hydrogel expands the paracrine potency of mesenchymal stem cells	Drzeniek N.M., Mazzocchi A., Schlickeiser S., Forsythe S.D., Moll G., Geißler S., Reinke P., Gossen M., Gorantla V.S., Volk H.-D., Soker S.	Biofabrication	13	4			45002	2021	9.954	10.1088/1758-5090/ac0a32	Hybrid	MSE
65	Scientometric overview of coffee by-products and their applications	Durán- Aranguren D.D., Robledo S., Gomez-Restrepo E., Arboleda-Valencia J.W., Tarazona N.A.	Molecules	26	24			7605	2021	4.412	10.3390/molecules26247605	Gold	MSE
66	Experimental design in polymer chemistry—a guide towards true optimization of a raft polymerization using design of experiments (Doe)	Eckert T., Klein F.C., Frieler P., Thunich O., Abetz V.	Polymers	13	18			3147	2021	4.329	10.3390/polym13183147	Gold	MSE
67	Influence of Mg content in Al alloys on processing characteristics and dynamically recrystallized microstructure of friction surfacing deposits	Ehrich J., Roos A., Klusemann B., Hanke S.	Materials Science and Engineering A	819				141407	2021	5.234	10.1016/j.msea.2021.141407	Closed	MSE
68	A computational framework for modeling cell–matrix interactions in soft biological tissues	Eichinger J.F., Grill M.J., Kermani I.D., Aydin R.C., Wall W.A., Humphrey J.D., Cyron C.J.	Biomechanics and Modeling in Mechanobiology	20	5	1851	1870		2021	2.963	10.1007/s10237-021-01480-2	Hybrid / Deal	MSE
69	Mechanical homeostasis in tissue equivalents: a review	Eichinger J.F., Häusel L.J., Paukner D., Aydin R.C., Humphrey J.D., Cyron C.J.	Biomechanics and Modeling in Mechanobiology	20	3	833	850		2021	2.963	10.1007/s10237-021-01433-9	Hybrid / Deal	MSE
70	What do cells regulate in soft tissues on short time scales?	Eichinger J.F., Paukner D., Aydin R.C., Wall W.A., Humphrey J.D., Cyron C.J.	Acta Biomaterialia						2021	8.947	10.1016/j.actbio.2021.07.054	Hybrid	MSE
71	Grain boundary formation through particle detachment during coarsening of nanoporous metals	Elder K.L.M., Beck Andrews W., Ziehmer M., Mameka N., Kirchlechner C., Davydok A., Micha J.-S., Chadwick A.F., Lilleodden E.T., Thornton K., Voorhees P.W.	Proceedings of the National Academy of Sciences of the United States of America	118	30			e2104132118	2021	11.205	10.1073/pnas.2104132118	Closed	MSE, MML
72	Multimodal analysis of spatially heterogeneous microstructural refinement and softening mechanisms in three-pass friction stir processed Al-4Si alloy	Escobar J., Gwalani B., Olszta M., Silverstein J., Overman N., Bergmann L., dos Santos J.F., Staron P., Maawad E., Klusemann B., Mathaudhu S., Devaraj A.	Journal of Alloys and Compounds	887				161351	2021	5.316	10.1016/j.jallcom.2021.161351	Closed	MSE, MML

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73	Response of ferrite, cementite, bainite, martensite, and retained austenite to a fire cycle in a fire-resistant steel	Escobar, J.D., Gomes, P.M., Ariza-Echeverri, E.A., Carvalho, F.M., Schell, N., Stark, A., Rodrigues, T.A., Oliveira, J.P., Avila, J.A., Goldenstein, H., and Tschiptschin, A.P.	Materials Characterization	182				111567	2021	4.342	10.1016/j.matchar.2021.111567	Closed	MSE, MML
74	Intensification of catalytic CO ₂ methanation mediated by <i>in-situ</i> water removal through a high-temperature polymeric thin-film composite membrane	Escorihuela S., Cerdá-Moreno C., Weigelt F., Remiro-Buenamañana S., Escolástico S., Tena A., Shishatskiy S., Brinkmann T., Chicaa A., Serra J.M.	Journal of CO2 Utilization	55				101813	2021	7.132	10.1016/j.jcou.2021.101813	Closed	MSE
75	Effect of filler wire and post weld heat treatment on the mechanical properties of laser beam-welded AA2198	Examilioti, TN; Kashaev, N; Ventzke, V; Klusemann, B; Alexopoulos, ND	Materials Characterization	178				111257	2021	4.342	10.1016/j.matchar.2021.111257	Closed	MSE
76	Origami hand for soft robotics driven by thermally controlled polymeric fiber actuators	Farhan M., Behl M., Kratz K., Lendlein A.	MRS Communications	11	4	476	482		2021	2.566	10.1557/s43579-021-00058-4	Hybrid / Deal	MSE
77	Process transferability of friction riveting of AA2024-T351/polyetherimide (PEI) joints using hand-driven, low-cost drilling equipment	Feier A., Becheru A., Brînduşoiu M., Blaga L.	Processes	9	8			1376	2021	2.847	10.3390/pr9081376	Gold	MSE
78	Rational Design of Effective Mg Degradation Modulators	Feiler, C; Mei, D; Luthringer-Feyerabend, BJC; Lamaka, SV; Zheludkevich, ML	CORROSION	77	2	204	208		2021	1.770	10.5006/3597	Hybrid	MSE
79	The temperature effect on the plastic deformation of the Mg88Zn7Y5 alloy with LPSO phase studied by <i>in-situ</i> synchrotron radiation diffraction	Fekete K., Farkas G., Drozdenko D., Tolnai D., Stark A., Dobroň P., Garcés G., Máthis K.	Intermetallics	138				107321	2021	3.758	10.1016/j.intermet.2021.107321	Closed	MSE, MML
80	Negative Differential Resistance of Graphene Oxide/Sulphur Compound	Figarova, SR; Aliyev, EM; Abaszade, RG; Alekberov, RI; Figarov, VR	JOURNAL OF NANO RESEARCH	67		25	31		2021	2.929	10.4028/www.scientific.net/JNanor.67.25	Closed	MSE

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81	Reaction behaviour of peptide-based single thiol-thioesters exchange reaction substrate in the presence of externally added thiols	Folikumah M.Y., Behl M., Lendlein A.	MRS Communications	11	4	402	410		2021	2.566	10.1557/s43579-021-00041-z	Hybrid / Deal	MSE
82	Thiol-thioester exchange reactions in precursors enable pH-triggered hydrogel formation	Folikumah M.Y., Behl M., Lendlein A.	Biomacromolecules	22	5	1875	1884		2021	6.988	10.1021/acs.biomac.0c01690	Closed	MSE
83	In-situ synchrotron X-ray diffraction during quenching and tempering of SAE 52100 steel	Foster, D., Paladugu, M., Hughes, J., Kapousidou, M., Islam, U., Stark, A., Schell, N., and Jimenez-Melero, E.	Materials Today Communications	29				102930	2021	3.383	10.1016/j.mtcomm.2021.102930	Closed	MSE, MML
84	In situ investigation of the oxidation behaviour of chemical vapour deposited Zr(C,N) hard coatings using synchrotron x-ray diffraction	Frank F., Tkadletz M., Saringer C., Stark A., Schell N., Deluca M., Czettel C., Schalk N.	Coatings	11	3	1	16	264	2021	2.881	10.3390/coatings11030264	Gold	MSE, MML
85	Size control of shape switchable micronetworks by fast two-step microfluidic templating	Friess F., Lendlein A., Wischke C.	Journal of Materials Research	36	16	3248	3257		2021	3.089	10.1557/s43578-021-00295-2	Hybrid / Deal	MSE
86	Switching microobjects from low to high aspect ratios by a shape-memory effect	Friess F., Lendlein A., Wischke C.	Soft Matter	17	41	9326	9331		2021	3.678	10.1039/d1sm00947h	Hybrid	MSE
87	In situ high-energy X-ray diffraction of precipitation and dissolution reactions during heating of Al alloys	Fröck, H.; Rowolt, C.; Milkereit, B.; Reich, M.; Kowalski, W.; Stark, A.; Keßler, O.	Journal of Materials Science	56		19697	19708		2021	4.220	10.1007/s10853-021-06548-z	Hybrid	MSE, MML
88	Improved mechanical properties of cast Mg alloy welds via texture weakening by differential rotation refill friction stir spot welding	Fu B., Shen J., Suhuddin U.F.H.R., Chen T., dos Santos J.F., Klusemann B., Rethmeier M.	Scripta Materialia	203				114113	2021	5.611	10.1016/j.scriptamat.2021.114113	Hybrid	MSE, MML
89	Revealing joining mechanism in refill friction stir spot welding of AZ31 magnesium alloy to galvanized DP600 steel	Fu B., Shen J., Suhuddin U.F.H.R., Pereira A.A.C., Maawad E., dos Santos J.F., Klusemann B., Rethmeier M.	Materials and Design	209				109997	2021	7.991	10.1016/j.matdes.2021.109997	Gold	MSE, MML
90	Extraordinary strength-ductility in gradient amorphous structured Zr-based alloy	Fu Y., Chen H., Guo R., Huang Y., Toroghinejad M.R.	Journal of Alloys and Compounds	888				161507	2021	5.316	10.1016/j.jallcom.2021.161507	Closed	MSE

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91	A novel smoothed particle hydrodynamics and finite element coupling scheme for fluid–structure interaction: The sliding boundary particle approach	Fuchs S.L., Meier C., Wall W.A., Cyron C.J.	Computer Methods in Applied Mechanics and Engineering	383				113922	2021	6.756	10.1016/j.cma.2021.113922	Closed	MSE
92	An SPH framework for fluid–solid and contact interaction problems including thermo–mechanical coupling and reversible phase transitions	Fuchs S.L., Meier C., Wall W.A., Cyron C.J.	Advanced Modeling and Simulation in Engineering Sciences	8	1			15	2021	Scopus	10.1186/s40323-021-00200-w	Gold	MSE
93	Fourier optics with linearly tapered waveguides: Light trapping and focusing	Gaafar M.A., Renner H., Eich M., Petrov A.Y.	APL Photonics	6	6			66108	2021	5.672	10.1063/5.0050770	Gold	MSE
94	Parallel hybrid Monte Carlo / Molecular Statics for Simulation of Solute Segregation in Solids	Ganesan H., Longworth M., Sutmann G.	Journal of Physical Chemistry C	1740	1			12001	2021	Scopus	10.1088/1742-6596/1740/1/012001	Hybrid	MSE
95	Quantifying the High-Temperature Separation Behavior of Lamellar Interfaces in γ -Titanium Aluminide Under Tensile Loading by Molecular Dynamics	Ganesan H., Scheider I., Cyron C.J.	Frontiers in Materials	7				602567	2021	3.515	10.3389/fmats.2020.602567	Gold	MSE
96	Understanding creep in TiAl alloys on the nanosecond scale by molecular dynamics simulations	Ganesan H., Scheider I., Cyron C.J.	Materials & Design	212				110282	2021	7.991	10.1016/j.matdes.2021.110282	Gold	MSE
97	Electrochemical Surface Structuring for Strong SMA Wire-Polymer Interface Adhesion	Gapeeva A., Vogtmann J., Zeller-Plumhoff B., Beckmann F., Gurka M., Carstensen J., Adlung R.	ACS Applied Materials and Interfaces	13	18	21924	21935		2021	9.229	10.1021/acsami.1c00807	Closed	MSE, MML
98	Degradation of titanium sintered with magnesium: Effect of hydrogen uptake	Garamus V.M., Limberg W., Serdechnova M., Mei D., Lamaka S.V., Ebel T., Willumeit-Römer R.	Metals	11	4			527	2021	2.351	10.3390/met11040527	Gold	MSE, MML
99	Load Partitioning Between Mg ₁₇ Al ₁₂ Precipitates and Mg Phase in the AZ91 Alloy Using In-Situ Synchrotron Radiation Diffraction Experiments	Garces G., Medina J., Chávez B., Perez P., Barea R., Stark A., Schell N., Adeva P.	Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science	52	7	2732	2745		2021	2.556	10.1007/s11661-021-06258-w	Closed	MSE, MML

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100	Statistical analysis of AA-1050 localized corrosion in anhydrous ethanol	Gazenbiller E., Arya V., Reitz R., Engler T., Oechsner M., Höche D.	Corrosion Science	179				109137	2021	7.205	10.1016/j.corsci.2020.109137	Closed	MSE
101	Improved thermal stability of zirconia macroporous structures via homogeneous aluminum oxide doping and nanostructuring using atomic layer deposition	Gehensel R.J., Zierold R., Schaan G., Shang G., Petrov A.Y., Eich M., Blick R., Krekeler T., Janssen R., Furlan K.P.	Journal of the European Ceramic Society	41	7	4302	4312		2021	5.302	10.1016/j.jeurceramsoc.2021.02.007	Hybrid	MSE
102	Microstructure, mechanical and functional properties of refill friction stir spot welds on multilayered aluminum foils for battery application	Gera D., Fu B., Suhuddin U.F.H.R., Plaine A., Alcantara N., dos Santos J.F., Klusemann B.	Journal of Materials Research and Technology	13		2272	2286		2021	5.039	10.1016/j.jmrt.2021.06.017	Gold	MSE
103	Deformation Behavior of Cross-Linked Supercrystalline Nanocomposites: An in Situ SAXS/WAXS Study during Uniaxial Compression	Giuntini D., Davydok A., Blankenburg M., Domènech B., Bor B., Li M., Scheider I., Krywka C., Müller M., Schneider G.A.	Nano Letters	21	7	2891	2897		2021	11.189	10.1021/acs.nanolett.0c05041	Hybrid	MSE, MML
104	Defects and plasticity in ultrastrong supercrystalline nanocomposites	Giuntini D., Zhao S., Krekeler T., Li M., Blankenburg M., Bor B., Schaan G., Domènech B., Müller M., Scheider I., Ritter M., Schneider G.A.	Science Advances	7	2			eabb6063	2021	14.136	10.1126/sciadv.abb6063	Gold	MSE, MML
105	Amine-Terminated PAN Membranes as Anion-Adsorber Materials	Glass S., Mantel T., Appold M., Sen S., Usman M., Ernst M., Filiz V.	Chemie-Ingenieur-Technik	93	9	1396	1400		2021	1.672	10.1002/cite.202100037	Hybrid / Deal	MSE
106	Control of the Mg alloy biodegradation via PEO and polymer-containing coatings	Gnedenkov A.S., Lamaka S.V., Sinebryukhov S.L., Mashtalyar D.V., Egorkin V.S., Imshinetskiy I.M., Zheludkevich M.L., Gnedenkov S.V.	Corrosion Science	182				109254	2021	7.205	10.1016/j.corsci.2021.109254	Closed	MSE
107	Mg Biodegradation Mechanism Deduced from the Local Surface Environment under Simulated Physiological Conditions	Gonzalez J., Lamaka S.V., Mei D., Scharnagl N., Feyerabend F., Zheludkevich M.L., Willumeit-Römer R.	Advanced Healthcare Materials	10	13			2100053	2021	9.933	10.1002/adhm.202100053	Hybrid / Deal	MSE
108	Fatigue performance of metal-composite friction spot joints	Goushegir S.M., Dos Santos J.F., Amancio-Filho S.T.	Materials	14	16			4516	2021	3.623	10.3390/ma14164516	Gold	MSE

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109	Direct and broadband plasmonic charge transfer to enhance water oxidation on a gold electrode	Graf M., Vonbun-Feldbauer G.B., Koper M.T.M.	ACS Nano	15	2	3188	3200		2021	15.881	10.1021/acsnano.0c09776	Hybrid	MSE
110	High-temperature thermochemical energy storage using metal hydrides: Destabilisation of calcium hydride with silicon	Griffond A.C.M., Sofianos M.V., Sheppard D.A., Humphries T.D., Sargent A.-L., Dornheim M., Aguey-Zinsou K.-F., Buckley C.E.	Journal of Alloys and Compounds	858				158229	2021	5.316	10.1016/j.jallcom.2020.158229	Hybrid	MSE
111	Dual Layer Hollow Fiber Membranes with Functionalized Separation Layer for Improved Hydrophilicity [Verbesserte Hydrophilie von Hohlfasermembranen mittels funktionalisierter Trennschicht für die Ultrafiltration]	Grünig L.E., Handge U.A., Koll J., Gronwald O., Weber M., Hankiewicz B., Scharnagl N., Abetz V.	Chemie-Ingenieur-Technik	93	9	1451	1456		2021	1.672	10.1002/cite.202100034	Hybrid / Deal	MSE
112	Solvent-Induced Crystallization of Poly(phenylene sulfone)	Grünig L.E., Meyer A., Emmler T., Abetz V., Handge U.A.	Macromolecules	54	10	4816	4826		2021	5.985	10.1021/acs.macromol.1c00323	Closed	MSE
113	Texture development and dislocation activities in Mg-Nd and Mg-Ca alloy sheets	Ha, C.; Bohlen, J.; Zhou, X.; Brokmeier, HG; Kainer, KU; Schell, N.; Letzig, D; Yi, S	Materials Characterization	175				111044	2021	4.342	10.1016/j.matchar.2021.111044	Hybrid	MSE, MML
114	An innovative integrated process for helium and NGL recovery and nitrogen removal	Hamed H.	Cryogenics	113				103224	2021	2.226	10.1016/j.cryogenics.2020.103224	Closed	MSE
115	Rigorous and Customizable 1D Simulation Framework for Membrane Reactors to, in Principle, Enhance Synthetic Methanol Production	Hamed H., Brinkmann T.	ACS Sustainable Chemistry and Engineering	9	22	7620	7629		2021	8.198	10.1021/acssuschemeng.1c01677	Hybrid	MSE
116	Membrane-assisted methanol synthesis processes and the required permselectivity	Hamed H., Brinkmann T., Shishatskiy S.	Membranes	11	8			596	2021	4.106	10.3390/membranes11080596	Gold	MSE
117	Formation and corrosion behaviors of calcium phosphate coatings on plasma electrolytic oxidized Mg under changing chemical environment	Han J., Blawert C., Tang S., Yang J., Hu J., Zheludkevich M.L.	Surface and Coatings Technology	412				127030	2021	4.158	10.1016/j.surfcoat.2021.127030	Closed	MSE
118	Evolution and performance of a MgO/HA/DCPD gradient coating on pure magnesium	Han, JP; Luthringer, B; Tang, SW; Hu, J; Blawert, C; Zheludkevich, ML	Journal of Alloys and Compounds	883				160793	2021	5.316	10.1016/j.jallcom.2021.160793	Closed	MSE

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119	Tailoring Disorder and Quality of Photonic Glass Templates for Structural Coloration by Particle Charge Interactions	Häntsch Y., Shang G., Lei B., Winhard B., Petrov A., Eich M., Holm E., Schneider G.A., Furlan K.P.	ACS Applied Materials and Interfaces	13	17	20511	20523		2021	9.229	10.1021/acsami.1c01392	Hybrid	MSE
120	Modeling of the hydrogen sorption kinetics in an AB2 laves type metal hydride alloy	Hariyadi A., Suwarno S., Denys R. V., Bellosta von Colbe, J. M., Saetre, T. O., Yartys, V.	Journal of Alloys and Compounds	893				162135	2021	5.316	10.1016/j.jallcom.2021.162135	Hybrid	MSE
121	In situ Observation of Ternary Eutectic Growth in a Directionally Solidified Mo-Si-B Alloy Using High-Energy Synchrotron X-Rays	Hasemann G., Zhu L., Hauschildt K., Blankenburg M., Ida S., Pyczak F., Yoshimi K., Krüger M.	Advanced Engineering Materials	23	11			2100111	2021	3.862	10.1002/adem.202100111	Hybrid	MSE, MML
122	Step-scheme heterojunction photocatalysts for solar energy, water splitting, CO2 conversion, and bacterial inactivation: a review	Hasija V., Kumar A., Sudhaik A., Raizada P., Singh P., Van Le Q., Le T.T., Nguyen V.-H.	Environmental Chemistry Letters	19	4	2941	2966		2021	9.027	10.1007/s10311-021-01231-w	Closed	MSE
123	Direct evidence for eoarchean iron metabolism?	Hassenkam T., Tsai E.H.R., Sørensen H.O., Dalby K.N., Mackenzie D.M.A., Holler M., Ferreira D., Grolmund D., Bruns S., Rosing M.T.	Geobiology	19	3	218	227		2021	4.407	10.1111/gbi.12432	Closed	MSE
124	Introduction of an innovative corrosion-protective alkyd steel coating based on a novel layered aluminum tripolyphosphate loaded with 6-amino hexanoic acid (ATP-6-AHA)	Hejjaj C., AitAghzzaf A., Scharnagl N., Zheludkevich M.L., Hakkou R., Fischer C.B.	Progress in Organic Coatings	161				106500	2021	5.161	10.1016/j.porgcoat.2021.106500	Closed	MSE
125	In vitro investigation on degradable mg-based biomaterial under the impact of the serum glycoprotein fetuin	Helmholz H., Adejube B., Luthringer-feyerabend B., Willumeit-römer R.	Materials	14	17			5005	2021	3.623	10.3390/ma14175005	Gold	MSE
126	Tissue responses after implantation of biodegradable Mg alloys evaluated by multimodality 3D micro-bioimaging in vivo	Helmholz H., Will O., Penate-Medina T., Humbert J., Damm T., Luthringer-Feyerabend B., Willumeit-Römer R., Glüer C.-C., Penate-Medina O.	Journal of Biomedical Materials Research - Part A	109	8	1521	1529		2021	4.396	10.1002/jbm.a.37148	Hybrid / Deal	MSE
127	Modeling precipitation kinetics for multi-phase and multi-component systems using particle size distributions via a moving grid technique	Herrnring J., Sundman B., Staron P., Klusemann B.	Acta Materialia	215				117053	2021	8.203	10.1016/j.actamat.2021.117053	Hybrid	MSE, MML

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128	Rational Designed Hybrid Peptides Show up to a 6-Fold Increase in Antimicrobial Activity and Demonstrate Different Ultrastructural Changes as the Parental Peptides Measured by BioSAXS	Hilpert, K.; Gani, J.; Rumancev, C.; Simpson, N.; Lopez-Perez, P.M.; Garamus, V.M.; von Gundlach, A.R.; Markov, P.; Scocchi, M.; Mikut, R., Rosenhahn, A.	Frontiers in Pharmacology	12				769739	2021	Scopus	10.3389/fphar.2021.769739	Gold	MSE, MML
129	Evaporation kinetics in highly porous tetrapodal zinc oxide networks studied using in situ SRμCT	Hindenlang, B., Gapeeva, A., Baum, M.J., Kaps, S., Saure, L.M., Rasch, F., Hammel, J., Moosmann, J., Storm, M., Adlung, R., Schütt, F., Zeller-Plumhoff, B.	Scientific Reports	11				20272	2021	4.379	10.1038/s41598-021-99624-y	Gold	MSE, MML
130	Novel Magnesium Based Materials: Are They Reliable Drone Construction Materials? A Mini Review	Höche D., Weber W.E., Gazenbiller E., Gavras S., Hort N., Dieringa H.	Frontiers in Materials	8				575530	2021	3.515	10.3389/fmats.2021.575530	Gold	MSE
131	Predictive constitutive modelling of arteries by deep learning	Holzapfel, GA; Linka, K; Sherifova, S; Cyron, CJ	Journal of the Royal Society Interface	18	182			20210411	2021	4.118	10.1098/rsif.2021.0411	Hybrid	MSE
132	Pragmatic Interoperability and Translation of Industrial Engineering Problems into Modelling and Simulation Solutions	Horsch M.T., Chiacchiera S., Seaton M.A., Todorov I.T., Schembera B., Klein P., Konchakova N.A.	Communications in Computer and Information Science	1427		45	59		2021	Scopus	10.1007/978-3-030-81200-3_4	Closed	MSE
133	Effects of proteins on magnesium degradation - static vs. dynamic conditions	Hou R., Feyerabend F., Helmholtz H., Garamus V.M., Willumeit-Römer R.	Journal of Magnesium and Alloys						2021	10.088	10.1016/j.jma.2021.07.021	Gold	MSE
134	A strategy for dimensionality reduction and data analysis applied to microstructure-property relationships of nanoporous metals	Huber N.	Materials	14	8			1822	2021	3.623	10.3390/ma14081822	Gold	MSE
135	Modelling the effect of intrinsic radiation damage on mechanical properties: The crystalline-to-amorphous transition in zircon	Huber N., Beirau T.	Scripta Materialia	197				113789	2021	5.611	10.1016/j.scriptamat.2021.113789	Hybrid	MSE
136	Influence of Nb on Ti diffusion in γ -TiAl intermetallics studied by mechanical spectroscopy	Ibáñez-Pérez J., Nó M.L., Oehring M., Clemens H., San Juan J.M.	Journal of Alloys and Compounds	867				158880	2021	5.316	10.1016/j.jallcom.2021.158880	Hybrid	MSE

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137	The Influence of In Situ Anatase Particle Addition on the Formation and Properties of Multifunctional Plasma Electrolytic Oxidation Coatings on AA2024 Aluminum Alloy	Ignjatović S., Blawert C., Serdechnova M., Karpushenkov S., Damjanović M., Karlova P., Dovzhenko G., Wieland D.C.F., Zeller-Plumhoff B., Starykevich M., Stojanović S., Damjanović-Vasilić L., Zheludkevich M.L.	Advanced Engineering Materials	23	11				2021	3.862	10.1002/adem.202001527	Hybrid / Deal	MSE, MML
138	Formation of multi-functional TiO ₂ surfaces on AA2024 alloy using plasma electrolytic oxidation	Ignjatović S., Blawert C., Serdechnova M., Karpushenkov S., Damjanović M., Karlova P., Wieland D.C.F., Starykevich M., Stojanović S., Damjanović-Vasilić L., Zheludkevich M.L.	Applied Surface Science	544				148875	2021	6.707	10.1016/j.apsusc.2020.148875	Hybrid	MSE, MML
139	Utilizing x-ray diffraction tomography to study the effect of biodegradable magnesium implants on the bone ultrastructure	Iskhakova K., Wieland D. F., Zeller-Plumhoff B., Willumeit-Römer R.	Proc. SPIE	11840				118400M	2021	Scopus	10.1117/12.2593704	Closed	MSE, MML
140	Atomic Layer Deposition for Gradient Surface Modification and Controlled Hydrophilization of Ultrafiltration Polymer Membranes	Itzhak T., Segev-Mark N., Simon A., Abetz V., Ramon G.Z., Segal-Peretz T.	ACS Applied Materials and Interfaces	13	13	15591	15600		2021	9.229	10.1021/acsami.0c23084	Closed	MSE
141	Capturing shrinkage and neck growth with phase field simulations of the solid state sintering	Ivannikov V., Thomsen F., Ebel T., Willumeit-Römer R.	Modelling and Simulation in Materials Science and Engineering	29	7			75008	2021	2.248	10.1088/1361-651X/ac1f87	Hybrid	MSE
142	Non-woven shape-memory polymer blend actuators	Izraylit V., Heuchel M., Kratz K., Lendlein A.	MRS Advances	6	33	781	785		2021	Scopus	10.1557/s43580-021-00063-8	Hybrid / Deal	MSE
143	Crystallization and degradation behaviour of multiblock copolyester blends in Langmuir monolayers	Izraylit V., Liu Y., Tarazona N.A., Machatschek R., Lendlein, A.	MRS Communications	11	6	850	855		2021	2.566	10.1557/s43579-021-00107-y	Hybrid / Deal	MSE
144	Experimental and numerical analysis of refill friction stir spot welding of thin AA7075-T6 sheets	Janga V.S.R., Awang M. Yamin, M.F., Suhuddin U.F.H., Klusemann B., dos Santos J.F.	Materials	14	23			7485	2021	Scopus	10.3390/ma14237485	Gold	MSE
145	Scaling up metal hydrides for real-scale applications: Achievements, challenges and outlook	Jensen E.H., Dornheim M., Sartori S.	Inorganics	9	5			37	2021	Scopus	10.3390/inorganics9050037	Gold	MSE
146	Deteriorated corrosion performance of micro-alloyed Mg-Zn alloy after heat treatment and mechanical processing	Jin Y., Blawert C., Yang H., Wiese B., Bohlen J., Mei D., Deng M., Feyerabend F., Willumeit R.	Journal of Materials Science and Technology	92		214	224		2021	8.067	10.1016/j.jmst.2021.04.005	Closed	MSE

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147	Effect of Al content on texture evolution and recrystallization behavior of non-flammable magnesium sheet alloys	Jo S., Letzig D., Yi S.	Metals	11	3	1	10	468	2021	2.351	10.3390/met11030468	Gold	MSE
148	Osmotic Transport at the Aqueous Graphene and hBN Interfaces: Scaling Laws from a Unified, First-Principles Description	Joly L., Meißner R.H., Iannuzzi M., Tocci G.	ACS Nano						2021	15.881	10.1021/acsnano.1c05931	Closed	MSE
149	Local Strain Distribution in ZnO Microstructures Visualized with Scanning Nano X-Ray Diffraction and Impact on Electrical Properties	Jordt P., Hrkac S.B., Gröttrup J., Davydok A., Krywka C., Wolff N., Kienle L., Adelung R., Magnussen O.M., Murphy B.M.	Advanced Engineering Materials	23	11			2100201	2021	3.862	10.1002/adem.202170045 10.1002/adem.202100201	Hybrid	MSE, MML
150	Investigation of temperature evolution and flash formation at AA5083 studs during friction surfacing	Kallien Z., Rath L., Roos A., Klusemann B.	Materials Science Forum	1016 MSF		660	665		2021	Scopus	10.4028/www.scientific.net/MSF.1016.660	Green	MSE
151	Predici as a Polymer Engineers' Tool for the Synthesis of Polymers via Anionic Polymerization	Kandelhard F., Georgopoulos P.	Industrial and Engineering Chemistry Research	60	30	11373	11384		2021	3.720	10.1021/acs.iecr.1c01319	Closed	MSE
152	Model-Assisted Optimization of RAFT Polymerization in Micro-Scale Reactors—A Fast Screening Approach	Kandelhard F., Schuldt K., Schymura J., Georgopoulos P., Abetz V.	Macromolecular Reaction Engineering	15	4			2000058	2021	1.931	10.1002/mren.202000058	Hybrid / Deal	MSE
153	High temperature tensile, compression and creep behaviour of recycled short carbon fibre reinforced AZ91 magnesium alloy fabricated by a high shearing dispersion technique	Kandemir S., Gavras S., Dieringa H.	Journal of Magnesium and Alloys	9	5	1753	1767		2021	10.088	10.1016/j.jma.2021.03.029	Gold	MSE
154	Numerical Simulations of Gas Sorption Experiments in Polymers: Influence of Aspect Ratio and Pressure Increase Rate on the Determination of Diffusion Coefficient	Kargar M., Handge U.A.	Macromolecular Theory and Simulations	30	5			2100016	2021	1.530	10.1002/mats.202100016	Hybrid / Deal	MSE
155	Characterization of LiBH ₄ -MgH ₂ Reactive Hydride Composite System with Scattering and Imaging Methods Using Neutron and	Karimi F., Böttres S., Pranzas P.K., Metz O., Hoell A., Gizer G., Puszkiel J.A., Riglos M.V.C., Pistidda C., Dornheim M., Klassen T., Schreyer A.	Advanced Engineering Materials	23	11			2100294	2021	3.862	10.1002/adem.202100294	Hybrid / Deal	MSE, MML

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156	A comprehensive study on lithium-based reactive hydride composite (Li-RHC) as a reversible solid-state hydrogen storage system toward potential mobile applications	Karimi F., Pranzas P.K., Puszkiel J.A., Castro Riglos M.V., Milanese C., Vainio U., Pistidda C., Gizer G., Klassen T., Schreyer A., Dornheim M.	RSC Advances	11	37	23122	23135		2021	3.361	10.1039/d1ra03246a	Gold	MSE, MML
157	Evolution of the crystal structure and magnetic properties of Sm-doped BiFeO ₃ ceramics across the phase boundary region	Karpinsky D.V., Pakalniškis A., Niaura G., Zhaludkevich D.V., Zhaludkevich A.L., Latushka S.I., Silibin M., Serdechnova M., Garamus V.M., Lukowiak A., Stręk W., Kaya M., Skaudžius R., Kareiva A.	Ceramics International	47	4	5399	5406		2021	4.527	10.1016/j.ceramint.2020.10.120	Closed	MSE, MML
158	On the prediction of fatigue crack growth based on weight functions in residual stress fields induced by laser shock peening and laser heating	Kashaev N., Keller S., Staron P., Maawad E., Huber N.	Fatigue and Fracture of Engineering Materials and Structures						2021	3.459	10.1111/ffe.13579	Hybrid / Deal	MSE, MML
159	Application of stress intensity factor superposition in residual stress fields considering crack closure	Keller S., Klusemann B.	Engineering Fracture Mechanics	243				107415	2021	4.406	10.1016/j.engfracmech.2020.10.7415	Hybrid	MSE
160	Direct Plasmonic Excitation of the Hybridized Surface States in Metal Nanoparticles	Khurgin J.B., Petrov A., Eich M., Uskov A.V.	ACS Photonics	8	7	2041	2049		2021	7.529	10.1021/acsp Photonics.1c00167	Closed	MSE
161	Microstructure evolution induced by the intrinsic heat treatment occurring during wire-arc additive manufacturing of an Al-Mg-Zn-Cu crossover alloy	Klein T., Graf G., Staron P., Stark A., Clemens H., Spoerk-Erdely P.	Materials Letters	303				130500	2021	3.423	10.1016/j.matlet.2021.130500	Closed	MSE, MML
162	Corrosion and mechanical properties of a novel biomedical WN43 magnesium alloy prepared by spark plasma sintering	Knapek M., Zemková M., Greš A., Jablonská E., Lukáč F., Král R., Bohlen J., Minárik P.	Journal of Magnesium and Alloys	9	3	853	865		2021	10.088	10.1016/j.jma.2020.12.017	Gold	MSE
163	Modeling Charge Redistribution at Magnetite Interfaces in Empirical Force Fields	Konuk M., Sellschopp K., Vonbun-Feldbauer G.B., Meißner R.H.	Journal of Physical Chemistry C	125	8	4794	4805		2021	4.126	10.1021/acs.jpcc.0c10338	Hybrid	MSE
164	Self-assembly of gradient copolymers in a selective solvent. New structures and comparison with diblock and statistical copolymers	Kravchenko V.S., Abetz V., Potemkin I.I.	Polymer	235				124288	2021	4.430	10.1016/j.polymer.2021.124288	Closed	MSE

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165	Unprecedented Thermal Stability of Plasmonic Titanium Nitride Films up to 1400 °C	Krekeler T., Rout S.S., Krishnamurthy G.V., Störmer M., Arya M., Ganguly A., Sutherland D.S., Bozhevolnyi S.I., Ritter M., Pedersen K., Petrov A.Y., Eich M., Chirumamilla M.	Advanced Optical Materials	9	16			2100323	2021	9.926	10.1002/adom.202100323	Hybrid	MSE
166	Structural degradation of tungsten sandwiched in hafnia layers determined by in-situ XRD up to 1520 °C	Krishnamurthy G.V., Chirumamilla M., Rout S.S., Furlan K.P., Krekeler T., Ritter M., Becker H.-W., Petrov A.Y., Eich M., Störmer M.	Scientific Reports	11	1			3330	2021	4.379	10.1038/s41598-021-82821-0	Gold	MSE
167	Assessing the microstructure and in vitro degradation behavior of Mg-xGd screw implants using µCT	Krueger, D.; Zeller-Plumhoff, B.; Wiese, B.; Yi, S.; Zuber, M.; Wieland, F.; Moosmann, J.; Willumeit, R.	Journal of magnesium and alloys						2021	10,088	10.1016/j.jma.2021.07.029	Gold	MSE, MML
168	High-Resolution Ex Vivo Analysis of the Degradation and Osseointegration of Mg-xGd Implant Screws in 3D	Krüger D., Galli S., Zeller-Plumhoff B., Wieland D.C.F., Peruzzi N., Wiese B., Heuser P., Moosmann J., Wennerberg A., Willumeit-Römer R.	Bioactive Materials	in press					2021	8.724	10.1016/j.bioactmat.2021.10.041	Gold	MSE, MML
169	Response of Endothelial Cells to Gelatin-Based Hydrogels	Krüger-Genge A., Hauser S., Neffe A.T., Liu Y., Lendlein A., Pietzsch J., Jung F.	ACS Biomaterials Science and Engineering	7	2	527	540		2021	4.749	10.1021/acsbomaterials.0c01432	Closed	MSE
170	Structural, magnetic and thermodynamic properties of barium ferromolybdate	Kutuzau M.D., Blokhin A.V., Yurkshovich Y.N., Demyanov S.E., Kalanda N.A., Yarmolich M.V., Serdechnova M.	Philosophical Magazine	101	14	1699	1708		2021	1.864	10.1080/14786435.2021.1926566	Closed	MSE
171	Diluted and concentrated organosols of fullerene C60 in the toluene-acetonitrile solvent system as studied by diverse experimental methods	Kyzyma, O.; Mchedlov-Petrosyan, N.; Al-Shuuchi, Y.; Tropin, T.; Ivankov, O.; Kriklya, N.; Gromovoy, T.; Kryshstal, A.; Zhigunov, A.; Korosteleva, E.; Shekhovtsov, S.; Garamus, V.; Bulavin, L.	Fullerenes, Nanotubes and Carbon Nanostructures	29	4	315	330		2021	1.869	10.1080/1536383X.2020.1841752	Closed	MSE
172	Friction-based processes for hybrid multi-material joining	Lambiasi F., Balle F., Blaga L.-A., Liu F., Amancio-Filho S.T.	Composite Structures	266				113828	2021	5.407	10.1016/j.compstruct.2021.113828	Closed	MSE
173	Investigation of friction stir welding process applied to ASTM 572 steel plate clad with Inconel®625	Landell R.M., de Lima Lessa C.R., Bergmann L., dos Santos J.F., Kwietniewski C.E.F., Klusemann B.	Welding in the World	65	3	393	403		2021	2.103	10.1007/s40194-020-01007-w	Closed	MSE
174	Coronary Artery Dimensions in Endurance Athletes by Computed Tomography Angiography: A Quantitative Analysis	Langer C., Barbieri F., Plank F., Dichtl W., Homma S., Feuchtnr G.M.	Journal of Cardiovascular Development and Disease	8	11			141	2021	3.948	10.3390/jcdd8110141	Gold	MSE
175	Designing Cardiovascular Implants taking in view the Endothelial Basement Membrane	Lau S., Gossen M., Lendlein A.	International Journal of Molecular Sciences	22	23			13120	2021	5.923	10.3390/ijms222313120	Gold	MSE

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176	Venous and arterial endothelial cells from human umbilical cords: Potential cell sources for cardiovascular research	Lau S., Gossen M., Lendlein A., Jung F.	International Journal of Molecular Sciences	22	2	1	14	978	2021	5.923	10.3390/ijms22020978	Gold	MSE
177	Establishment of an in vitro thrombogenicity test system with cyclic olefin copolymer substrate for endothelial layer formation	Lau S., Liu Y., Maier A., Braune S., Gossen M., Neffe A.T., Lendlein A.	MRS Communications	11	5	559	567		2021	2.566	10.1557/s43579-021-00072-6	Hybrid / Deal	MSE
178	Effect of endothelial culture medium composition on platelet responses to polymeric biomaterials	Lau S., Maier A., Braune S., Gossen M., Lendlein A.	International Journal of Molecular Sciences	22	13			7006	2021	5.923	10.3390/ijms22137006	Gold	MSE
179	Structure and properties of ti-al-ta and ti-al-cr cladding layers fabricated on titanium	Lazurenko D.V., Golkovsky M.G., Stark A., Pyczak F., Bataev I.A., Ruktuev A.A., Petrov I.Yu., Laptev I.S.	Metals	11	7			1139	2021	2.351	10.3390/met11071139	Gold	MSE, MML
180	In situ synchrotron X-ray diffraction study of reaction routes in Ti-Al3Ti-based composites: The effect of transition metals on L12 structure stabilization	Lazurenko D.V., Lozanov V.V., Stark A., Pyczak F., Ruktuev A.A., Emurlaev K.I., Song L., Bataev I.A., Ivanov I.V., Ogneva T.S., Bataev A.A.	Journal of Alloys and Compounds	875				160004	2021	5.316	10.1016/j.jallcom.2021.160004	Closed	MSE, MML
181	Nanoconfinement effects on hydrogen storage properties of MgH2 and LiBH4	Le T.T., Pistidda C., Nguyen V.H., Singh P., Raizada P., Klassen T., Dornheim M.	International Journal of Hydrogen Energy	46	46	23723	23736		2021	5.816	10.1016/j.ijhydene.2021.04.150	Closed	MSE
182	Shape-memory polymers designed in view of thermomechanical energy storage and conversion systems	Lendlein, A., Heuchel, M.	ACS Central Sciences	7	10	1599	1601		2021	14.553	10.1021/acscentsci.1c01032	Gold	MSE
183	Nanoporous gold-polypyrrole hybrid electrochemical actuators with tunable elasticity	Li J., Markmann J., Weissmüller J., Mameka N.	Acta Materialia	212				116852	2021	8.203	10.1016/j.actamat.2021.116852	Closed	MSE
184	Effect of grain refinement induced by wire and arc additive manufacture (WAAM) on the corrosion behaviors of AZ31 magnesium alloy in NaCl solution	Li J., Qiu Y., Yang J., Sheng Y., Yi Y., Zeng X., Chen L., Yin F., Su J., Zhang T., Tong X., Guo B.	Journal of Magnesium and Alloys						2021	10.088	10.1016/j.jma.2021.04.007	Gold	MSE
185	A Unique Quenching and Deformation Dilatometer for Combined In Situ Neutron Diffraction Analysis of Engineering Materials	Li X., Hofmann M., Landesberger M., Reiberg M., Zhang X., Huang Y., Wang L., Werner E., Gan W.	Advanced Engineering Materials	23	11			2100163	2021	3.862	10.1002/adem.202170046 10.1002/adem.202100163	Hybrid / Deal	MSE, MML

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186	Incorporation of LDH nanocontainers into plasma electrolytic oxidation coatings on Mg alloy	Li Y., Lu X., Serdechnova M., Blawert C., Zheludkevich M.L., Qian K., Zhang T., Wang F.	Journal of Magnesium and Alloys						2021	10.088	10.1016/j.jma.2021.07.015	Gold	MSE
187	Cooligomers from morpholine-2,5-dione and para-dioxanone and catalyst complex SnOct2/2-hydroxyethyl sulfide	Liang X., Behl M., Luetzow K., Lendlein A.	MRS Advances	6	32	764	768		2021	Scopus	10.1557/s43580-021-00082-5	Hybrid / Deal	MSE
188	Effect of annealing temperature on anisotropy of mechanical properties in powder metallurgy FeCoCrNiN0.07 high-entropy alloy sheets	Liang X., Kang L., Li H., Wang R., Wu Q., Liu B., Wang L.	Materials Science and Engineering A	823				141585	2021	5.234	10.1016/j.msea.2021.141585	Closed	MSE
189	Static recrystallization and texture evolution of cold-rolled powder metallurgy CoCrFeNiN0.07 high-entropy alloy	Liang X., Wu Q., Li H., Wang R., Kang L., Liu B., Wang L.	Journal of Alloys and Compounds	862				158602	2021	5.316	10.1016/j.jallcom.2021.158602	Closed	MSE
190	Influence of small amounts of Si and Cr on the high temperature oxidation behavior of novel cobalt base superalloys	Liang Z., Göken M., Lorenz U., Neumeier S., Oehring M., Pyczak F., Stark A., Wang L.	Corrosion Science	184				109388	2021	7.205	10.1016/j.corsci.2021.109388	Closed	MSE, MML
191	Breaking the continuity of the Al2O3 oxide scale by additions of Cr in Co-Al-W-based superalloys	Liang Z., Pyczak F., Stark A., Rao Z., Neumeier S., Göken M.	Corrosion Science	189				109594	2021	7.205	10.1016/j.corsci.2021.109594	Closed	MSE, MML
192	Multicomponent network formation in selective layer of composite membrane for co2 separation	Lillepärq J., Sperling E., Blanke M., Held M., Shishatskiy S.	Membranes	11	3	1	17	174	2021	4.106	10.3390/membranes11030174	Gold	MSE
193	In-Situ High-Energy X-ray Diffraction Study of Austenite Decomposition During Rapid Cooling and Isothermal Holding in Two HSLA Steels	Lin S., Borggren U., Stark A., Borgenstam A., Mu W., Hedström P.	Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science	52	5	1812	1825		2021	2.556	10.1007/s11661-021-06192-x	Hybrid	MSE, MML
194	Constitutive artificial neural networks: A fast and general approach to predictive data-driven constitutive modeling by deep learning	Linka K., Hillgärtner M., Abdolazizi K.P., Aydin R.C., Itskov M., Cyron C.J.	Journal of Computational Physics	429				110010	2021	3.553	10.1016/j.jcp.2020.110010	Closed	MSE

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195	Unraveling the Local Relation Between Tissue Composition and Human Brain Mechanics Through Machine Learning	Linka K., Reiter N., Würges J., Schicht M., Bräuer L., Cyron C.J., Paulsen F., Budday S.	Frontiers in Bioengineering and Biotechnology	9				704738	2021	5.890	10.3389/fbioe.2021.704738	Gold	MSE
196	Machine learning-augmented and microspectroscopy-informed multiparametric MRI for the non-invasive prediction of articular cartilage composition	Linka K., Thüring J., Rieppo L., Aydin R.C., Cyron C.J., Kuhl C., Merhof D., Truhn D., Nebelung S.	Osteoarthritis and Cartilage	29	4	592	602		2021	6.576	10.1016/j.joca.2020.12.022	Closed	MSE
197	In situ observation of competitive growth of α grains during $\beta \rightarrow \alpha$ transformation in laser beam manufactured TiAl alloys	Liu J., Wu T., Wang M., Wang L., Zhou Q., Wang K., Staron P., Schell N., Huber N., Kashaev N.	Materials Characterization	179				111371	2021	4.342	10.1016/j.matchar.2021.111371	Closed	MSE, MML
198	Influence of Graphene on Microstructure and Corrosion and Wear Resistance of Micro-Arc Oxidation Coatings on D16T Al Alloy Drill Pipe	Liu W., He W., Jiang H., Wang Q., Chen L., Yang Z., Lin Y.	Journal of Materials Engineering and Performance	30	6	4162	4173		2021	1.819	10.1007/s11665-021-05727-y	Closed	MSE
199	Creep-induced ω phase precipitation and cavity formation in a cast 45.5Ti-45Al-9Nb-0.5B alloy	Liu X., Song L., Stark A., Lazurenko D., Pyczak F., Zhang T.	Journal of Alloys and Compounds	875				160106	2021	5.316	10.1016/j.jallcom.2021.160106	Closed	MSE, MML
200	Deformation and phase transformation behaviors of a high Nb-containing TiAl alloy compressed at intermediate temperatures	Liu X., Song L., Stark A., Lorenz U., He Z., Lin J., Pyczak F., Zhang T.	Journal of Materials Science and Technology	102		89	96		2021	8.067	10.1016/j.jmst.2021.06.041	Closed	MSE, MML
201	On demand sequential release of (sub)micron particles controlled by size and temperature	Liu Y., Gould O.E.C., Kratz K., Lendlein A.	Small	18	5			2104621	2021	13.281	10.1002/sml.202104621	Hybrid / Deal	MSE
202	Comparison of edge cracking and tensile cracking in in-situ deformation at 150°C of Mg-2Zn-1.5Mn alloy sheet	Liu, Q., Song, J., Huang, Y., Jiang, B., Xiao, B., Pan, F.	Journal of Materials Science & Technology	112		24	35		2021	8.067	10.1016/j.jmst.2021.09.033	Closed	MSE
203	In situ synchrotron X-ray diffraction study of continuous cooling transformations of TIMETAL 54M	Maawad E., Stark A.	Journal of Alloys and Compounds	881				160602	2021	5.316	10.1016/j.jallcom.2021.160602	Closed	MSE, MML
204	Hydrolytic stability of polyetherimide investigated in ultrathin films	Machatschek R., Heuchel M., Lendlein A.	Journal of Materials Research	36	14	2987	2944		2021	3.089	10.1557/s43578-021-00267-6	Hybrid / Deal	MSE
205	Thin layer studies on surface functionalization of polyetherimide: Hydrolysis versus amidation	Machatschek R., Heuchel M., Lendlein A.	Journal of Materials Research	37		67	76		2021	3.089	10.1557/s43578-021-00339-7	Hybrid	MSE

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206	Assessing the Influence of Temperature-Memory Creation on the Degradation of Copolyesterurethanes in Ultrathin Films	Machatschek R., Saretia S., Lendlein A.	Advanced Materials Interfaces	8	6			2001926	2021	6.147	10.1002/admi.202001926	Hybrid / Deal	MSE
207	Microstructure and Fracture Toughness of an Extruded Mg-Dy-Nd-Zn-Zr Alloy Influenced by Heat Treatment	Maier P., Clausius B., Joy C., Menze R., Bittner B., Hort N.	Minerals, Metals and Materials Series			19	26		2021	Scopus	10.1007/978-3-030-65528-0_4	Closed	MSE
208	Crack propagation in as-extruded and heat-treated mg-dy-nd-zn-zr alloy explained by the effect of lps structures and their micro- and nanohardness	Maier P., Clausius B., Richter A., Bittner B., Hort N., Menze R.	Materials	14	13			3686	2021	3.623	10.3390/ma14133686	Gold	MSE
209	Effect of LPSO Phases on Crack Propagation in an Extruded Mg-Dy-Nd-Zn-Zr Alloy Influenced by Heat Treatment	Maier P., Clausius B., Richter A., Bittner B., Hort N., Menze R.	Minerals, Metals and Materials Series			45	55		2021	Scopus	10.1007/978-3-030-72432-0_6	Closed	MSE
210	Cellular response of blood-borne immune cells to PEEU fiber meshes	Maring J. A., Becker M., Wang W., Ullah I., Tung W.T., Ma N., Lendlein A.	Clinical Hemorheology and Microcirculation	79	1	205	230		2021	2.375	10.3233/CH-219114	Green	MSE
211	4D-Actuators by 3D-Printing Combined with Water-based Curing	Mazurek-Budzyńska M., Behl M., Neumann R., Lendlein A.	Materials Today Communications	30				102966	2021	3.383	10.1016/j.mtcomm.2021.102966	Closed	MSE
212	Corrosion behavior of Mg wires for ureteral stent in artificial urine solution	Mei D., Wang C., Nienaber M., Pacheco M., Barros A., Neves S., Reis R.L., Zhu S., Bohlen J., Letzig D., Guan S., Zheludkevich M.L., Lamaka S.V.	Corrosion Science	189				109567	2021	7.205	10.1016/j.corsci.2021.109567	Closed	MSE
213	Recent progress on control strategies for inherent issues in friction stir welding	Meng X., Huang Y., Cao J., Shen J., dos Santos J.F.	Progress in Materials Science	115				100706	2021	39.580	10.1016/j.pmatsci.2020.100706	Closed	MSE
214	Degradation analysis of thin mg-xag wires using x-ray near-field holotomography	Meyer S., Wolf A., Sanders D., Iskhakova K., Ćwieka H., Bruns S., Flenner S., Greving I., Hagemann J., Willumeit-Römer R., Wiese B., Zeller-Plumhoff B.	Metals	11	9			1422	2021	2.351	10.3390/met11091422	Gold	MSE, MML

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215	Biocompatibility and electrochemical evaluation of ZrO ₂ thin films deposited by reactive magnetron sputtering on MgZnCa alloy	Millán-Ramos B., Morquecho-Marín D., Silva-Bermudez P., Ramírez-Ortega D., Depablos-Rivera O., García-López J., Fernández-Lizárraga M., Victoria-Hernández J., Letzig D., Almaguer-Flores A., Rodil S.E.	Journal of Magnesium and Alloys						2021	10.088	10.1016/j.jma.2021.07.010	Gold	MSE
216	The effect of Zr on dynamic recrystallization during ECAP processing of Mg-Y-RE alloys	Minárik P., Zemková M., Veselý J., Bohlen J., Knapek M., Král R.	Materials Characterization	174				111033	2021	4.342	10.1016/j.matchar.2021.111033	Closed	MSE
217	Synergic effect of high temperature and high pressure on consolidation of Mg-4Y-3Nd powder by spark plasma sintering	Minárik P., Zemková M., Veselý J., Lukáč F., Bohlen J., Knapek M., Král R.	Materials Letters	292				129647	2021	3.423	10.1016/j.matlet.2021.129647	Closed	MSE
218	Zeolite-containing photocatalysts immobilized on aluminum support by plasma electrolytic oxidation	Mojsilović K., Božović N., Stojanović S., Damjanović-Vasilčić L., Serdechnova M., Blawert C., Zheludkevich M.L., Stojadinović S., Vasilčić R.	Surfaces and Interfaces	26				101307	2021	4.837	10.1016/j.surfin.2021.101307	Closed	MSE
219	Nonequilibrium Processes in Polymer Membrane Formation: Theory and Experiment	Müller M., Abetz V.	Chemical Reviews						2021	60.622	10.1021/acs.chemrev.1c00029	Closed	MSE
220	Neutrons and Synchrotron Radiation - Unique Tools for the Characterization of Materials	Muller, M.; Busch, S.; Krywka, C.; Moulin, J.-.; Pyczak, F.; Staron, P.; Thiry, M.	Advanced Engineering Materials	23	11			2101374	2021	3.862	10.1002/adem.202101374	Closed	MSE, MML
221	Soft, formstable (Co)polyester blend elastomers	Neffe A.T., Izraylit V., Hommes-Schattmann P.J., Lendlein A.	Nanomaterials	11	6			1472	2021	5.076	10.3390/nano11061472	Gold	MSE
222	Thermally-induced shape-memory behavior of degradable gelatin-based networks	Neffe A.T., Löwenberg C., Julich-Gruner K.K., Behl M., Lendlein A.	International Journal of Molecular Sciences	22	11			5892	2021	5.923	10.3390/ijms22115892	Gold	MSE
223	Hydrogel Networks by Aliphatic Dithiol Michael Addition to Glycidylmethacrylated Gelatin	Neffe A.T., Löwenberg C., Lendlein A.	MRS Advances	6	33	796	800		2021	Scopus	10.1557/s43580-021-00136-8	Hybrid / Deal	MSE
224	Ethylene oxide sterilization of electrospun poly(l-lactide)/poly(d-lactide) core/shell nanofibers	Neffe A.T., Zhang Q., Hommes-Schattmann P.J., Lendlein A.	MRS Advances	6		786	789		2021	Scopus	10.1557/s43580-021-00058-5	Hybrid / Deal	MSE

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225	Functionalizable coaxial PLLA/PDLA nanofibers with stereocomplexes at the internal interface	Neffe A.T., Zhang Q., Hommes-Schattmann P.J., Wang W., Xu X., Ahmad B.S., Williams G.R., Lendlein A.	Journal of Materials Research	36	14	2995	3009		2021	3.089	10.1557/s43578-021-00260-z	Hybrid / Deal	MSE
226	Partitioning Behavior of Nb, Ta, and Zr in Fully Lamellar γ/α_2 Titanium Aluminides and Its Effect on the Lattice Misfit and Creep Behavior	Neumeier S., Bresler J., Zenk C., Haußmann L., Stark A., Pyczak F., Göken M.	Advanced Engineering Materials	23	11			2100156	2021	3.862	10.1002/adem.202100156	Hybrid	MSE, MML
227	The temperature dependent lattice misfit of rhenium and ruthenium containing nickel-base superalloys – Experiment and modelling	Neumeier S., Pyczak F., Göken M.	Materials and Design	198				109362	2021	7.991	10.1016/j.matdes.2020.109362	Gold	MSE
228	Modeling the kinetic behavior of the Li-RHC system for energy-hydrogen storage: (I) absorption	Neves A.M., Puszkiel J., Capurso G., Bellosta von Colbe J.M., Milanese C., Dornheim M., Klassen T., Jepsen J.	International Journal of Hydrogen Energy	46	63	32110	32125		2021	5.816	10.1016/j.ijhydene.2021.06.227	Closed	MSE
229	Insights into corrosion behaviour of uncoated Mg alloys for biomedical applications in different aqueous media	Neves C.S., Sousa I., Freitas M.A., Moreira L., Costa C., Teixeira J.P., Fraga S., Pinto E., Almeida A., Scharnagl N., Zheludkevich M.L., Ferreira M.G.S., Tedim J.	Journal of Materials Research and Technology	13		1908	1922		2021	5.039	10.1016/j.jmrt.2021.05.090	Gold	MSE
230	The response of human induced pluripotent stem cells to cyclic temperature changes explored by BIO-AFM	Nie Y., Wang W., Xu X., Ma N., Lendlein A.	MRS Advances	6	31	745	749		2021	Scopus	10.1557/s43580-021-00110-4	Hybrid / Deal	MSE
231	Well-defined polyvinylpyridine-: block - polystyrene diblock copolymers via RAFT aqueous-alcoholic dispersion polymerization: synthesis and isoporous thin film morphology	Nieswandt K., Georgopoulos P., Abetz V.	Polymer Chemistry	12	15	2210	2221		2021	5.582	10.1039/d1py00074h	Hybrid	MSE
232	RAFT Emulsion Polymerization of Styrene Using a Poly((N,N-dimethyl acrylamide)-co-(N-isopropyl acrylamide)) mCTA: Synthesis and Thermosensitivity	Nieswandt K., Georgopoulos P., Held M., Sperling E., Abetz V.	Polymers	14	1	62			2021	4.329	10.3390/polym14010062	Gold	MSE
233	Magnesium ions regulate mesenchymal stem cells population and osteogenic differentiation: A fuzzy agent-based modeling approach	Nourisa J., Zeller-Plumhoff B., Helmholz H., Luthringer Feyerabend B., Ivannikov V., Willumeit-Römer R.	Computational and Structural Biotechnology Journal	19		4110	4122		2021	7.271	10.1016/j.csbj.2021.07.005	Gold	MSE
234	200 NL H2 hydrogen storage tank using MgH2-TiH2-C nanocomposite as H storage material	Nyallang Nyamsi S., Lototskyy M.V., Yartys V.A., Capurso G., Davids M.W., Pasupathi S.	International Journal of Hydrogen Energy	46	36	19046	19059		2021	5.816	10.1016/j.ijhydene.2021.03.055	Closed	MSE

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235	Stainless steel reveals an anomaly in thermal expansion behavior of severely deformed materials	O. Renk, R. Enzinger, C. Gammer, D. Scheiber, B. Oberdorfer, M. Tkadletz, A. Stark, W. Sprengel, R. Pippan, J. Eckert, L. Romaner, A. Ruban	Physical Review Materials	5	11			113609	2021	3.989	10.1103/PhysRevMaterials.5.113609	Closed	MSE, MML
236	Effect of laser beam welding on microstructure, tensile strength and fatigue behaviour of duplex stainless steel 2205	Odermatt A., Ventzke V., Dorn F., Dinse R., Merhof P., Kashaev N.	Journal of Manufacturing Processes	72		148	158		2021	5.010	10.1016/j.jmapro.2021.10.020	Hybrid	MSE
237	An In Situ High-Energy Synchrotron X-Ray Diffraction Study of Directional Solidification in Binary TiAl Alloys	Oehring M., Matthiessen D., Blankenburg M., Schell N., Pyczak F.	Advanced Engineering Materials	23	11			2100151	2021	3.862	10.1002/adem.202100151	Hybrid / Deal	MSE, MML
238	A Highly Selective Polymer Material using Benzo-9-Crown-3 for the Extraction of Lithium in Presence of Other Interfering Alkali Metal Ions	Oral I., Abetz V.	Macromolecular Rapid Communications	42	9			2000746	2021	5.734	10.1002/marc.202000746	Hybrid / Deal	MSE
239	Synthesis of Poly(methacrylic acid)- <i>block</i> -Polystyrene Diblock Copolymers at High Solid Contents via RAFT Emulsion Polymerization	Oral I., Grossmann L., Fedorenko E., Struck J., Abetz V.	Polymers	13	21			3675	2021	4.329	10.3390/polym13213675	Gold	MSE
240	Multiscale Modeling Strategy of 2D Covalent Organic Frameworks Confined at an Air-Water Interface	Ortega-Guerrero A., Sahabudeen H., Croy A., Dianat A., Dong R., Feng X., Cuniberti G.	ACS Applied Materials and Interfaces	13	22	26411	26420		2021	9.229	10.1021/acsami.1c05967	Closed	MSE
241	Laser beam welding of a ti-15mo/tib metal-matrix composite	Ozerov M., Povolyaeva E., Stepanov N., Ventzke V., Dinse R., Kashaev N., Zherebtsov S.	Metals	11	3	1	12	506	2021	2.351	10.3390/met11030506	Gold	MSE
242	Superplasticity at intermediate temperatures of zk60 magnesium alloy processed by indirect extrusion	Palacios-Trujillo C., Victoria-Hernández J., Hernández-Silva D., Letzig D., García-Bernal M.A.	Metals	11	4			606	2021	2.351	10.3390/met11040606	Gold	MSE
243	Cracking of Ti2AlNb-based alloy after laser beam welding	Panov D.O., Naumov S.V., Sokolovsky V.S., Volokitina E.I., Kashaev N., Ventzke V., Dinse R., Riekehr S., Povolyaeva E.A., Alekseev E.B., Nochovnaya N.A., Zherebtsov S.V., Salishchev G.A.	IOP Conference Series: Materials Science and Engineering	1014	1			12035	2021	Scopus	10.1088/1757-899X/1014/1/012035	Gold	MSE
244	Multimodal ex vivo methods reveal that Gd-rich corrosion byproducts remain at the implant site of biodegradable Mg-Gd screws	Peruzzi, N., S. Galli, H. Helmholz, N. Kardjilov, D. Krüger, H. Markötter, J. Moosmann, D. Orlov, Z. Prgomet, R. Willumeit-Römer, A. Wennerberg, M. Bech	Acta Biomaterialia						2021	8.947	10.1016/j.actbio.2021.09.047	Hybrid	MSE, MML
245	Hydrogenation via a low energy mechanochemical approach: The MgB2 case	Pistidda C., Santhosh A., Jerabek P., Shang Y., Girella A., Milanese C., Dore M., Garroni S., Bordignon S., Chierotti M.R., Klassen T., Dornheim M.	JPhys Energy	3	4			44001	2021	5.967	10.1088/2515-7655/abf81b	Gold	MSE

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246	An in situ synchrotron dilatometry and atomistic study of martensite and carbide formation during partitioning and tempering	Plesiutchnig, E., Albu, M., Canelo-Yubero, D., Razumovskiy, V.I., Stark, A., Schell, N., Kothleitner, G., Beal, C., Sommitsch, C., Hofer, F.	Materials	14				3849	2021	3.623	10.3390/ma14143849	Gold	MSE, MML
247	TEM and Synchrotron X-ray Study of the Evolution of Phases Formed During Bonding of IN718/Al/IN718 Couples by TLPB	Poliserpi M., Barribero-Vila P., Requena G., García L.N., Tolley A., Poletti C., Vojtek T., Weiser A., Schell N., Stark A., Boeri R., Sommadossi S.	Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science	52	4	1382	1394		2021	2.556	10.1007/s11661-021-06159-y	Closed	MSE, MML
248	The effect of Isp on the structure evolution and self-heating of armco iron under cyclic loading	Prokhorov A., Vshivkov A., Plekhov O., Kashaev N., Fomin F., Ozerov M., Zherebtsov S.	Metals	11	8			1198	2021	2.351	10.3390/met11081198	Gold	MSE
249	Stability of ordered B2-β0 and disordered BCC-β phases in TiAl - a first principles study	Pyczak F., Kononikhina V., Stark A.	Materials Science Forum	1016 MSF		1159	1165		2021	Scopus	10.4028/www.scientific.net/MSF.1016.1159	Green	MSE
250	Screening for O phase in advanced γ-TiAl alloys	Rackel M.W., Stark A., Gabrisch H., Pyczak F.	Intermetallics	131				107086	2021	3.758	10.1016/j.intermet.2021.107086	Hybrid	MSE, MML
251	Selective Swelling and Functionalization of Integral Asymmetric Isoporous Block Copolymer Membranes	Rahman M.M.	Macromolecular Rapid Communications	42	16			2100235	2021	5.734	10.1002/marc.202100235	Hybrid / Deal	MSE
252	Tailoring Crosslinked Polyether Networks for Separation of CO2 from Light Gases	Rahman M.M., Abetz V.	Macromolecular Rapid Communications	42	13			2100160	2021	5.734	10.1002/marc.202100160	Hybrid / Deal	MSE
253	Membrane Separation of Gaseous Hydrocarbons by Semicrystalline Multiblock Copolymers: Role of Cohesive Energy Density and Crystallites of the Polyether Block	Rahman, M.	Polymers	13	23	4181			2021	4.329	10.3390/polym13234181	Gold	MSE
254	Early osteoimmunomodulatory effects of magnesium-calcium-zinc alloys	Rahmati M., Stötzel S., Khassawna T.E., Iskhahova K., Florian Wieland D.C., Zeller Plumhoff B., Haugen H.J.	Journal of Tissue Engineering	12					2021	7.813	10.1177/20417314211047100	Gold	MSE
255	Intrinsically disordered peptides enhance regenerative capacities of bone composite xenografts	Rahmati, M., Stötzel, S., Khassawna, T.E., Mao, C. Ali, A., Vaughan, J.C., Iskhahova, K., Wieland, D.C.F., Cantalapiedra, A.G., Perale, G., Betge, F., Dillon, E.P., Lyngstadaas, S.P. Haugen, H.J.	Materials Today						2021	26.410	10.1016/j.mattod.2021.12.001	Hybrid	MSE

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256	Improved dynamic imaging of multiphase flow by constrained tomographic reconstruction	Rasmussen, P., Sørensen, H., Bruns, S., Dahl, A., Christensen, A.	Sci. Rep.	11				12501	2021	3.990	10.1038/s41598-021-91776-1	Gold	MSE
257	An atomistic view on Oxygen, antisites and vacancies in the γ -TiAl phase	Razumovskiy V.I., Ecker W., Wimler D., Fischer F.D., Appel F., Mayer S., Clemens H.	Computational Materials Science	197				110655	2021	3.300	10.1016/j.commatsci.2021.110655	Closed	MSE
258	Preclinical assessment of a modified Occlutech left atrial appendage closure device in a porcine model	Reinthal M., Grosshauser J., Schmidt T., Unger J., Morgan R., Zimmermann F., Hartung J., Seppelt C., Meteva D., Haider W., Landmesser U., Skurk C.	Scientific Reports	11	1			2988	2021	4.379	10.1038/s41598-021-82359-1	Gold	MSE
259	Synthesis of bulk reactive Ni-Al composites using high pressure torsion	Renk O., Tkadletz M., Kostoglou N., Gunduz I.E., Fezzaa K., Sun T., Stark A., Doumanidis C.C., Eckert J., Pippan R., Mitterer C., Rebholz C.	Journal of Alloys and Compounds	857				157503	2021	5.316	10.1016/j.jallcom.2020.157503	Closed	MSE, MML
260	Image segmentation and analysis for densification mapping of nanoporous gold after nanoindentation	Richert C., Wu Y., Hablitzel M., Lilleodden E.T., Huber N.	MRS Advances	6	20	519	523		2021	Scopus	10.1557/s43580-021-00099-w	Hybrid / Deal	MSE
261	Effect of heat treatments on 316 stainless steel parts fabricated by wire and arc additive manufacturing : Microstructure and synchrotron X-ray diffraction analysis	Rodrigues, T.A., Escobar, J.D., Shen, J., Duarte, V.R., Ribamar, G.G., Avila, J.A., Maawad, E., Schell, N., Santos, T.G., and Oliveira, J.P.	Additive Manufacturing	48 Part B				102428	2021	10.998	10.1016/j.addma.2021.102428	Closed	MSE, MML
262	Approaches of combining a 3D-printed elastic structure and a hydrogel to create models for plant-inspired actuators	Rodriguez N., Bastola A.K., Behl M., Soffatti P., Rowe N.P., Lendlein A.	MRS Advances	6	25	625	630		2021	Scopus	10.1557/s43580-021-00081-6	Hybrid / Deal	MSE
263	Efficient generation of osteoclasts from human induced pluripotent stem cells and functional investigations of lethal CLCN7-related osteopetrosis	Rössler U., Hennig A.F., Stelzer N., Bose S., Kopp J., Søe K., Cyganek L., Zifarelli G., Ali S., von der Hagen M., Strässler E.T., Hahn G., Pusch M., Stauber T., Izsvák Z., Gossen M., Stachelscheid H., Kornak U.	Journal of Bone and Mineral Research	36	8	1621	1635		2021	6.741	10.1002/jbmr.4322	Hybrid	MSE
264	Cotton Textile/Iron Oxide Nanozyme Composites with Peroxidase-like Activity: Preparation, Characterization, and Application	Safarik I., Prochazkova J., Schroer M.A., Garamus V.M., Kopcansky P., Timko M., Rajnak M., Karpets M., Ivankov O.I., Avdeev M.V., Petrenko V.I., Bulavin L., Pospiskova K.	ACS Applied Materials and Interfaces	13	20	23627	23637		2021	9.229	10.1021/acsami.1c02154	Closed	MSE, MML
265	Multi-functionality as design principle for contact lens materials	Sahabudeen H., Machatschek R., Lendlein A	Multifunctional Materials	4				42001	2021	Scopus	10.1088/2399-7532/ac1e7d	Hybrid	MSE

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266	Effect of Water on Crystallization and Melting of Telechelic Oligo(ϵ -caprolactone)s in Ultrathin Films	Saretia S., Machatschek R., Bhuvanesh T., Lendlein A.	Advanced Materials Interfaces	8	7			2001940	2021	6.147	10.1002/admi.202001940	Hybrid / Deal	MSE
267	Degradation kinetics of oligo(ϵ -caprolactone) ultrathin films: Influence of crystallinity	Saretia S., Machatschek R., Lendlein A.	MRS Advances	6	33	790	795		2021	Scopus	10.1557/s43580-021-00067-4	Hybrid / Deal	MSE
268	Highly crystalline PCL ultrathin films as thermally switchable biomaterial coatings	Saretia S., Machatschek R., Lendlein A.	MRS Advances	6	10	283	290		2021	Scopus	10.1557/s43580-021-00020-5	Hybrid	MSE
269	Gaining Insight into the Deformation of Achilles Tendon Entheses in Mice	Sartori J., Köhring S., Bruns S., Moosmann J., Hammel J.U.	Advanced Engineering Materials	23	11			202100085	2021	3.862	10.1002/adem.202100085	Hybrid	MSE, MML
270	Fiber diameter as design parameter for tailoring the macroscopic shape-memory performance of electrospun meshes	Sauter T., Kratz K., Heuchel M., Lendlein A.	Materials and Design	202				109546	2021	7.991	10.1016/j.matdes.2021.109546	Gold	MSE
271	Anisotropy Effects in the Shape-Memory Performance of Polymer Foams	Sauter T., Kratz K., Madbouly S., Klein F., Heuchel M., Lendlein A.	Macromolecular Materials and Engineering	306	4			2000730	2021	4.367	10.1002/mame.202000730	Hybrid / Deal	MSE
272	Evaluation of Energy Efficiency Technologies with the EDUAR&D Method on Two Exemplary Technologies [Bewertung von Energieeffizienztechnologien mit der Methodik EDUAR&D an zwei Beispielen]	Schäfer B., Toro Chacón F.A., Brinkmann T., Drews A., Jochem E., Sauer J.	Chemie-Ingenieur-Technik	93	8	1247	1256		2021	1.672	10.1002/cite.202000251	Hybrid	MSE
273	Neural network surgery: Combining training with topology optimization	Schiessler E.J., Aydin R.C., Linka K., Cyron C.J.	Neural Networks	144		384	393		2021	8.050	10.1016/j.neunet.2021.08.034	Hybrid	MSE
274	Predicting the inhibition efficiencies of magnesium dissolution modulators using sparse machine learning models	Schiessler E.J., Wurer T., Lamaka, S.V., Meissner R.H., Cyron C.C., Zheludkevich M.L., Feiler C., Aydin R.C.	NPJ Computational Materials	7	1			193	2021	12.241	10.1038/s41524-021-00658-7	Gold	MSE
275	Using In Situ Synchrotron-Radiation-Based Microtomography to Investigate 3D Structure-Dependent Material Properties of Tension Wood	Schmelzle S., Bruns S., Beckmann F., Moosmann J., Lautner S.	Advanced Engineering Materials	23	11			2100235	2021	3.862	10.1002/adem.202100235	Closed	MSE, MML

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276	Crystal Plasticity Modeling of Creep in Alloys with Lamellar Microstructures at the Example of Fully Lamellar TiAl	Schnabel J.E., Scheider I.	Frontiers in Materials	7				581187	2021	3.515	10.3389/fmats.2020.581187	Gold	MSE
277	Elasto-plastic deformation of heterogeneous metallic materials: An experimental approach with AlMg4Si10	Schöbel M., Tolnai D., Hofmann M.	Materials Science Forum	1016 MSF		1816	1822		2021	Scopus	10.4028/www.scientific.net/MSF.1016.1816	Closed	MSE
278	Zero-discharge process for recycling of tetrahydrofuran-water mixtures	Schuldts K., Brinkmann T., Georgopoulos P.	Processes	9	5			729	2021	2.847	10.3390/pr9050729	Gold	MSE
279	Potential effects of nonadherent on adherent human umbilical venous endothelial cells in cell culture	Schulz C., Krüger-Genge A., Lendlein A., Küpper J.-H., Jung F.	International Journal of Molecular Sciences	22	3	1	17	1493	2021	5.923	10.3390/ijms22031493	Gold	MSE
280	Tailoring of residual stresses by specific use of defined prestress during laser shock peening	Schwab K.-C., Keller S., Kashaev N., Klusemann B.	Journal of Materials Processing Technology	295				117154	2021	5.551	10.1016/j.jmatprotec.2021.117154	Hybrid	MSE
281	Use of cellulose for the production of photoelectrolytic films for hydrogen evolution along the lines of paper production	Schwarze, M., Thiel, T.A., Tasbihi, M., Schroeter, M., Menezes, P.W., Walter, C., Driess, M., Schomäcker, R.	Energy Technology	10	1			2100525	2021	36.147	10.1002/ente.202100525	Hybrid	MSE
282	Phase-field modelling for fatigue crack growth under laser shock peening-induced residual stresses	Seiler M., Keller S., Kashaev N., Klusemann B., Kästner M.	Archive of Applied Mechanics	91	8	3709	3723		2021	1.976	10.1007/s00419-021-01897-2	Hybrid	MSE
283	Polymerizations by RAFT: Developments of the Technique and Its Application in the Synthesis of Tailored (Co)polymers	Semsarilar M., Abetz V.	Macromolecular Chemistry and Physics	222	1			2000311	2021	2.527	10.1002/macp.202000311	Hybrid / Deal	MSE
284	Properties of ZnO/ZnAl2O4 composite PEO coatings on zinc alloy Z1	Serdechnova M., Blawert C., Karpushenkov S., Karpushenkava L., Shulha T., Karlova P., Vasilic R., Stojadinovic S., Stojanovic S., Damjanovic-Vasilic L., Heitmann V., Rabchynski S.M., Zheludkevich M.L.	Surface and Coatings Technology	410				126948	2021	4.158	10.1016/j.surfcoat.2021.126948	Closed	MSE
285	Mg-based materials for hydrogen storage	Shang Y., Pistidda C., Gizer G., Klassen T., Dornheim M.	Journal of Magnesium and Alloys						2021	10.088	10.1016/j.jma.2021.06.007	Gold	MSE
286	Scaling behavior of stiffness and strength of hierarchical network nanomaterials	Shi S., Li Y., Ngo-Dinh B.-N., Markmann J., Weissmüller J.	Science	371	6533	1026	1033		2021	47.728	10.1126/science.abd9391	Closed	MSE

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287	In situ formation of LDH-based nanocontainers on the surface of AZ91 magnesium alloy and detailed investigation of their crystal structure.	Shulha, T., Serdechnova, Iuzviuk, M.H., Zobjkalo, I.A., Karlova, P., Scharnagl, N., Wieland, D.C.F., Lamaka, S.V., Yaremchenko, A.A., Blawert, C., Zheludkevich, M.L.	Journal of Magnesium and Alloys	in press					2021	10.088	10.1016/j.jma.2021.10.006	Gold	MSE, MML
288	Mechanical Testing of Extruded Magnesium for the Development of Automobile Seat Frame Structures	Sikora S.P., Bergmann L., Beeh E., Sulaiman H.	Advanced Structured Materials	149		3	14		2021	Scopus	10.1007/978-3-030-68277-4_1	Closed	MSE
289	Large LAA-Too Big for Closure? LAA Closure With the World's Biggest Percutaneous Closure Device	Skurk, C; Reinthaler, M; Kasner, M; Landmesser, U	JACC-CARDIOVASCULAR INTERVENTIONS	14	16	1846	1847		2021	11.195	10.1016/j.jcin.2021.05.016	Closed	MSE
290	On the reversibility of the α_2/ω phase transformation in a high Nb containing TiAl alloy during high temperature deformation	Song L., Appel F., Stark A., Lorenz U., He J., He Z., Lin J., Zhang T., Pyczak F.	Journal of Materials Science and Technology	93		96	102		2021	8.067	10.1016/j.jmst.2021.02.058	Closed	MSE, MML
291	Sustainable and green trends in using plant extracts for the synthesis of biogenic metal nanoparticles toward environmental and pharmaceutical advances: A review	Soni V., Raizada P., Singh P., Cuong H.N., S R., Saini A., Saini R.V., Le Q.V., Nadda A.K., Le T.-T., Nguyen V.-H.	Environmental Research	202				111622	2021	6.498	10.1016/j.envres.2021.111622	Closed	MSE
292	Exploring Structural Changes, Manufacturing, Joining, and Repair of Intermetallic gamma-TiAl-Based Alloys: Recent Progress Enabled by In Situ Synchrotron X-Ray Techniques	Spoerk-Erdely, P; Staron, P; Liu, J; Kashaev, N; Stark, A; Hauschildt, K; Maawad, E; Mayer, S; Clemens, H	Advanced Engineering Materials	23	11			2000947	2021	3.862	10.1002/adem.202000947	Hybrid	MSE, MML
293	Thermal expansion of a multiphase intermetallic Ti-Al-Nb-Mo alloy studied by high-energy X-ray diffraction	Staron P., Stark A., Schell N., Spoerk-Erdely P., Clemens H.	Materials	14	4	1	13	727	2021	3.623	10.3390/ma14040727	Gold	MSE, MML
294	Prediction of deformation and failure anisotropy for thin magnesium sheets under mixed-mode loading	Steglich, D., Besson J.	Mechanics of Materials	163				104064	2021	3.266	10.1016/j.mechmat.2021.104064	Hybrid	MSE
295	Comparing the local-global deformation mechanism in different friction stir welding sequences of Ti-4Al-0.005B titanium alloy T-joints	Su Y., Li W., Shen J., Fu B., dos Santos J.F., Klusemann B., Vairis A.	Materials Science and Engineering A	823				141698	2021	5.234	10.1016/j.msea.2021.141698	Closed	MSE
296	Experimental-numerical study of laser-shock-peening-induced retardation of fatigue crack propagation in Ti-17 titanium alloy	Sun R., Keller S., Zhu Y., Guo W., Kashaev N., Klusemann B.	International Journal of Fatigue	145				106081	2021	5.186	10.1016/j.ijfatigue.2020.106081	Hybrid	MSE

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297	Simulation of the θ' precipitation process with interfacial anisotropy effects in Al-Cu alloys	Ta N., Bilal M.U., Häusler I., Saxena A., Lin Y.-Y., Schleifer F., Fleck M., Glatzel U., Skrotzki B., Kamachali R.D.	Materials	14	5	1	19	1280	2021	3.623	10.3390/ma14051280	Gold	MSE
298	Osmotic pressure modulates single cell cycle dynamics inducing reversible growth arrest and reactivation of human metastatic cells	Taieb H.M., Garske D.S., Contzen J., Gossen M., Bertinetti L., Robinson T., Cipitria A.	Scientific Reports	11	1			13455	2021	4.379	10.1038/s41598-021-92054-w	Gold	MSE
299	Effects of Ni-loading contents on dehydrogenation kinetics and reversibility of Mg ₂ FeH ₆	Thiangviriyi S., Plerdsranoy P., Hagenah A., Le T.T., Kidkhunthod P., Utke O., Dornheim M., Klassen T., Pistidda C., Utke R.	International Journal of Hydrogen Energy	46	63	32099	32109		2021	5.816	10.1016/j.ijhydene.2021.06.206	Closed	MSE
300	Flexible Manufacturing of Concave-Convex Parts by Incremental Sheet Forming with Active Medium	Thiery S., Ben Khalifa N.	Minerals, Metals and Materials Series			549	561		2021	Scopus	10.1007/978-3-030-75381-8_45	Closed	MSE
301	Influence of the glass transition temperature and the density of crosslinking groups on the reversibility of diels-alder polymer networks	Thiessen M., Abetz V.	Polymers	13	8			1189	2021	4.329	10.3390/polym13081189	Gold	MSE
302	Microstructure and lattice parameters of suction-cast Ti-Nb alloys in a wide range of Nb concentrations	Thoemmes A., Bataev I.A., Lazurenko D.V., Ruktuev A.A., Ivanov I.V., Afonso C.R.M., Stark A., Jorge A.M., Jr.	Materials Science and Engineering A	818				141378	2021	5.234	10.1016/j.msea.2021.141378	Closed	MSE, MML
303	In vivo degradability and biocompatibility of a rheo-formed Mg-Zn-Sr alloy for ureteral implantation	Tie D., Guan R., Liu H., Chen M., Ulasevich S.A., Skorb E.V., Holt-Torres P., Lu X., Hort N.	Journal of Magnesium and Alloys						2021	10.088	10.1016/j.jma.2020.11.005	Gold	MSE
304	In vivo urinary compatibility of Mg-Sr-Ag alloy in a swine model	Tie D., Hort N., Chen M., Guan R., Ulasevich S., Skorb E. V., Zhao D., Liu Y., Holt-Torres P., Liu H.	Bioactive Materials	7		254	262		2021	14.593	10.1016/j.bioactmat.2021.05.046	Gold	MSE
305	Processing and characterization of magnesium-based materials	Tolnai D.	Crystals	11	2	1	2	96	2021	2.589	10.3390/cryst11020096	Gold	MSE
306	In Situ Synchrotron Tomography of the Solidification of an Elektron 21 Mg Alloy	Tolnai D., Gavras S., Wilde F., Hammel J.U., Bruns S.	Advanced Engineering Materials					2100383	2021	3.862	10.1002/adem.202100383	Hybrid / Deal	MSE, MML

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307	Biodegradation behaviour of Fe-based alloys in Hanks' Balanced Salt Solutions: Part I. material characterisation and corrosion testing	Tonna C., Wang C., Mei D., Lamaka S.V., Zheludkevich M.L., Buhagiar J.	Bioactive Materials	7		426	440		2021	14.593	10.1016/j.bioactmat.2021.05.048	Gold	MSE
308	Structure, mechanical properties and degradation behavior of electrospun PEEU fiber meshes and films	Tung W.T., Sun X., Wang W., Xu X., Ma N., Lendlein A.	MRS Advances	6	10	276	282		2021	Scopus	10.1557/s43580-020-00001-0	Hybrid / Deal	MSE
309	Multiblock copolymers type PDC- a family of multifunctional biomaterials for regenerative medicine	Ullah, I., Wang, W., Ma, N., Lendlein, A.	Clinical Hemorheology and Microcirculation						2021	2.375	10.3233/CH-211264	Closed	MSE
310	Competition of mechanisms contributing to the texture formation in metastable austenitic steel under compressive load	Ullrich C., Martin S., Schimpf C., Brokmeier H.-G., Schell N., Stark A., Rafaja D.	Materials Characterization	176				111132	2021	4.342	10.1016/j.matchar.2021.111132	Closed	MSE, MML
311	Adverse effect of 2,5PDC corrosion inhibitor on PEO coated magnesium	Vaghefinazari B., Wang C., Mercier D., Mei D., Seyeux A., Marcus P., Blawert C., Lamaka S.V., Zheludkevich M.L.	Corrosion Science	192				109830	2021	7.205	10.1016/j.corsci.2021.109830	Closed	MSE
312	In Situ High-Energy Synchrotron X-Ray Diffraction Reveals the Role of Texture on the Activation of Slip and Twinning during Deformation of Laser Powder Bed Fusion Ti-6Al-4V	Vallejos J.M., Barriobero-Vila P., Gussone J., Haubrich J., Kelm K., Stark A., Schell N., Requena G.	Advanced Engineering Materials						2021	3.862	10.1002/adem.202001556	Closed	MSE, MML
313	Designing advanced functional polymers for medicine	van Bochove B., Grijpma D.W., Lendlein A., Seppälä J.V.	European Polymer Journal	155				110573	2021	4.598	10.1016/j.eurpolymj.2021.110573	Closed	MSE
314	Influence of Twin-Roll Casting Speed on Microstructural Homogeneity, Centerline Segregation, and Surface Quality of Three Different Mg Alloys	Victoria-Hernández J., Kurz G., Bohlen J., Yi S., Letzig D.	JOM	73	5	1460	1470		2021	2.471	10.1007/s11837-021-04611-3	Hybrid / Deal	MSE
315	Role of non-basal slip systems on the microstructure and texture development of ZXK-Mg alloy deformed in Plane Strain Compression at elevated temperature	Victoria-Hernandez, J.; Yi, S.; Letzig, D.	Scripta Materialia	208				114322	2021	5.611	10.1016/j.scriptamat.2021.114322	Closed	MSE
316	Sustainability Assessment of Thermocatalytic Conversion of CO2 to Transportation Fuels, Methanol, and 1-Propanol	Vo, C.; Mondelli, C.; Hamed, H.; Pérez-Ramírez, J.; Farooq, S.; Karimi, I.	ACS Sustainable Chemistry & Engineering	9	31	10591	10600		2021	8.198	10.1021/acssuschemeng.1c02805	Closed	MSE

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317	Influence of Alumina Addition on the Optical Properties and the Thermal Stability of Titania Thin Films and Inverse Opals Produced by Atomic Layer Deposition	Waleczek, M; Dendooven, J; Dyachenko, P; Petrov, AY; Eich, M; Blick, RH; Detavernier, C; Nielsch, K; Furlan, KP; Zierold, R	Nanomaterials	11	4			1053	2021	5.076	10.3390/nano11041053	Gold	MSE
318	Biodegradation behaviour of Fe-based alloys in Hanks' Balanced Salt Solutions: Part II. The evolution of local pH and dissolved oxygen concentration at metal interface	Wang C., Tonna C., Mei D., Buhagiar J., Zheludkevich M.L., Lamaka S.V.	Bioactive Materials	7		412	425		2021	14.593	10.1016/j.bioactmat.2021.05.014	Gold	MSE
319	Synthesis and degradation behaviour of Zn-modified coating on Mg alloy	Wang J., Jin C., Mei D., Ding Y., Chang L., Zhu S., Wang L., Feng Y., Guan S.	Surface Engineering	37	8	963	971		2021	3.169	10.1080/02670844.2020.1840827	Closed	MSE
320	Enhancement of discharge performance for aqueous Mg-air batteries in 2,6-dihydroxybenzoate-containing electrolyte	Wang L., Snihirova D., Deng M., Vaghefinazari B., Höche D., Lamaka S.V., Zheludkevich M.L.	Chemical Engineering Journal	429				132369	2021	13.273	10.1016/j.cej.2021.132369	Closed	MSE
321	Indium chloride as an electrolyte additive for primary aqueous Mg batteries	Wang L., Snihirova D., Deng M., Wang C., Höche D., Lamaka S.V., Zheludkevich M.L.	Electrochimica Acta	373				137916	2021	6.901	10.1016/j.electacta.2021.137916	Closed	MSE
322	Insight into physical interpretation of high frequency time constant in electrochemical impedance spectra of Mg	Wang L., Snihirova D., Deng M., Wang C., Vaghefinazari B., Wiese G., Langridge M., Höche D., Lamaka S.V., Zheludkevich M.L.	Corrosion Science	187				109501	2021	7.205	10.1016/j.corsci.2021.109501	Closed	MSE
323	Microstructure and mechanical properties of Mg-3Sn-1Ca reinforced with AlN nanoparticles	Wang S., Huang Y., Yang L., Zeng Y., Hu Y., Zhang X., Sun Q., Shi S., Meng G., Hort N.	Journal of Magnesium and Alloys						2021	10.088	10.1016/j.jma.2021.04.002	Gold	MSE
324	A novel lean alloy of biodegradable Mg-2Zn with nanograins	Wang W., Blawert C., Zan R., Sun Y., Peng H., Ni J., Han P., Suo T., Song Y. Zheludkevich M.L., Zhang X.	Bioactive Materials	6	12	4333	4341		2021	14.593	10.1016/j.bioactmat.2021.04.020	Gold	MSE
325	Propagation-Based Phase Contrast Computed Tomography as a Suitable Tool for the Characterization of Spatial 3D Cell Distribution in Biomaterials	Wieland D.C.F., Krueger S., Moosmann J., Distler T., Weizel A., Boccaccini A.R., Seitz H., Jonitz-Heincke A., Bader R.	Advanced Engineering Materials	23	11			2001188	2021	3.862	10.1002/adem.202001188	Hybrid / Deal	MSE, MML

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326	ASAXS measurements on ferritin and apoferritin at the bioSAXS beamline P12 (PETRA III, DESY)	Wieland D.C.F., Schroer M.A., Gruzinov A.Y., Blanchet C.E., Jeffries C.M., Svergun D.I.	Journal of Applied Crystallography	54		830	838		2021	3.304	10.1107/S1600576721003034	Hybrid	MSE, MML
327	Flash-PEO as an alternative to chromate conversion coatings for corrosion protection of Mg alloy	Wierzbicka E., Vaghefinazari B., Lamaka S.V., Zheludkevich M.L., Mohedano M., Moreno L., Visser P., Rodriguez A., Velasco J., Arrabal R., Matykina E.	Corrosion Science	180				109189	2021	7.205	10.1016/j.corsci.2020.109189	Hybrid	MSE
328	Plastic instability and texture modification in extruded Mg-Mn-Nd alloy	Woo S.K., Pei R., Al-Samman T., Letzig D., Yi S.	Journal of Magnesium and Alloys						2021	10.088	10.1016/j.jma.2021.07.003	Gold	MSE
329	Effect of processing history on corrosion behaviours of high purity Mg	Woo S.K., Suh B.-C., Kim H.S., Yim C.D.	Corrosion Science	184				109357	2021	7.205	10.1016/j.corsci.2021.109357	Closed	MSE
330	Performance of a matrix type high speed steel after deep cryogenic and low tempering temperature	Worasæen K., Stark A., Tuchinda K., Suwanpinij P.	Materials Science Forum	1016 MSF		1423	1429		2021	Scopus	10.4028/www.scientific.net/MSF.1016.1423	Green	MSE, MML
331	Difference in formation of plasma electrolytic oxidation coatings on MgLi alloy in comparison with pure Mg	Wu T., Blawert C., Lu X., Serdechnova M., Zheludkevich M.L.	Journal of Magnesium and Alloys	9	5	1725	1740		2021	10.088	10.1016/j.jma.2021.03.017	Gold	MSE
332	Role of polymorph microstructure of Ti6Al4V alloy on PEO coating formation in phosphate electrolyte	Wu T., Blawert C., Serdechnova M., Karlova P., Dovzhenko G., Wieland D.C.F., Zheludkevich M.L.	Surface and Coatings Technology	428				127890	2021	4.158	10.1016/j.surfcoat.2021.127890	Hybrid	MSE, MML
333	MgAl-V2O7 4-LDHs/(PEI/MXene)10 composite film for magnesium alloy corrosion protection	Wu Y., Wu L., Zheludkevich M.L., Chen Y., Serdechnova M., Yao W., Blawert C., Atrens A., Pan F.	Journal of Materials Science and Technology	91		28	39		2021	8.067	10.1016/j.jmst.2021.03.011	Closed	MSE
334	PEO processing of AZ91Nd/Al2O3 MMC-the role of alumina fibers	Wu, T., Blawert, C., Serdechnova, M., Karlova, P., Dovzhenko, G., Wieland, D.C.F., Zheludkevich, M.L.	Journal of Magnesium and Alloys						2021	10.088	10.1016/j.jma.2021.09.017	Gold	MSE
335	Exploring structure-property relationships in magnesium dissolution modulators	Würger T., Mei D., Vaghefinazari B., Winkler D.A., Lamaka S.V., Zheludkevich M.L., Meißner R.H., Feiler C.	npj Materials Degradation	5	1			2	2021	5.900	10.1038/s41529-020-00148-z	Gold	MSE
336	Nonionic UCST-LCST Diblock Copolymers with Tunable Thermoresponsiveness Synthesized via PhotoRAFT Polymerization	Xu J., Abetz V.	Macromolecular Rapid Communications	42	7			2000648	2021	5.734	10.1002/marc.202000648	Hybrid / Deal	MSE

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337	Mesenchymal Stem Cell and Oxygen Modulate the Cocultured Endothelial Cells in the Presence of Magnesium Degradation Products	Xu L, Willumeit-Römer R, Luthringer-Feyerabend B.J.C.	ACS Applied Bio Materials	4	3	2398	2407		2021	Scopus	10.1021/acsabm.0c01289	Closed	MSE
338	Periodic thermomechanical modulation of toll-like receptor expression and distribution in mesenchymal stromal cells	Xu X, Nie Y, Wang W, Ma N, Lendlein A.	MRS Communications	11	4	425	431		2021	2.566	10.1557/s43579-021-00049-5	Hybrid / Deal	MSE
339	Generation of 2.5D lung bud organoid from human induced pluripotent stem cells	Xu X, Nie Y, Wang W, Ullah I, Tung W.T., Ma N, Lendlein A.	Clinical Hemorheology and Microcirculation	79	1	217	230		2021	2.375	10.3233/CH-219111	Green	MSE
340	Investigations on the tensile deformation of pure Mg and Mg-15Gd alloy by in-situ X-ray synchrotron radiation and visco-plastic self-consistent modeling	Xu Y, Huang Y, Wang Y, Gan W, Wang S, Maawad E, Schell N, Hort N.	Journal of Magnesium and Alloys						2021	10.088	10.1016/j.jma.2021.06.011	Gold	MSE, MML
341	Mechanical behaviors of extruded Mg alloys with high Gd and Nd content	Xu Y, Wang S, Wang Y, Chen L, Yang L, Xiao L, Yang L, Hort N.	Progress in Natural Science: Materials International	31	4	591	598		2021	3.607	10.1016/j.pnsc.2021.06.005	Gold	MSE
342	Superior fatigue endurance exempt from high processing cleanliness of Metal-Injection-Molded β Ti-Nb-Zr for bio-tolerant applications	Xu, P., Pyczak, F., Limberg, W., Willumeit-Römer, R., Ebel, T.	Materials and Design	211					2021	7.991	10.1016/j.matdes.2021.110141	Gold	MSE, MML
343	Influence of Thermal Processing on Resoloy Wire Microstructure and Properties	Xue J, Griebel A.J., Zhang Y., Romany C., Chen B., Schaffer J., Weihs T.P.	Advanced Engineering Materials	23	4			2001278	2021	3.862	10.1002/adem.202001278	Closed	MSE
344	Improving the Creep Resistance of Elektron21 by Adding AlN/Al Nanoparticles Using the High Shear Dispersion Technique	Yang H, Huang Y, Kainer K.U, Dieringa H.	Minerals, Metals and Materials Series			57	69		2021	Scopus	10.1007/978-3-030-72432-0_7	Closed	MSE
345	Properties of Mg-based Metal Matrix Nanocomposites Processed by High Shear Dispersion Technique (HSDT) - A Review	Yang H, Patel J.B., Yang X., Gavras S., Dieringa H.	Current Nanomaterials	6	2	106	118		2021	Scopus	10.2174/2405461506666210420133620	Closed	MSE

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346	Experimental and quantum chemical studies of carboxylates as corrosion inhibitors for AM50 alloy in pH neutral NaCl solution	Yang J., Jiang P., Qiu Y., Jao C.-Y., Blawert C., Lamaka S., Bouali A., Lu X., Zheludkevich M.L., Li W.	Journal of Magnesium and Alloys						2021	10.088	10.1016/j.jma.2021.05.021	Gold	MSE
347	Mechanism of Mn on inhibiting Fe-caused magnesium corrosion	Yang L., He S., Yang C., Zhou X., Lu X., Huang Y., Qin G., Zhang E.	Journal of Magnesium and Alloys	9	2	676	685		2021	10.088	10.1016/j.jma.2020.09.015	Gold	MSE
348	Microstructure, mechanical properties and fracture behaviors of large-scale sand-cast Mg-3Y-2Gd-1Nd-0.4Zr alloy	Yang L., Huang Y., Hou Z., Xiao L., Xu Y., Dong X., Li F., Kurz G., Sun B., Li Z., Hort N.	Journal of Magnesium and Alloys						2021	10.088	10.1016/j.jma.2021.08.010	Gold	MSE
349	Revealing the role of Al in the microstructural evolution and creep properties of Mg-2.85Nd-0.92Gd-0.41Zr-0.29Zn alloy	Yang, H.; Jiang, B.; Huang, G.; Huang, Y.; Jin, Y.; Gavras, S.; Dieringa, H.	Materials Science and Engineering: A	832				142358	2021	5.234	10.1016/j.msea.2021.142358	Closed	MSE
350	HYDRIDE4MOBILITY: An EU HORIZON 2020 project on hydrogen powered fuel cell utility vehicles using metal hydrides in hydrogen storage and refuelling systems	Yartys V.A., Lototsky M.V., Linkov V., Pasupathi S., Davids M.W., Tolj I., Radica G., Denys R.V., Eriksen J., Taube K., Bellosta von Colbe J., Capurso G., Dornheim M., Smith F., Mathebula D., Swanepoel D., Suwarno S.	International Journal of Hydrogen Energy	46	72	35896	35909		2021	5.816	10.1016/j.ijhydene.2021.01.190	Hybrid	MSE
351	Sacrificial protection of Mg-based resorbable implant alloy by magnetron sputtered Mg5Gd alloy coating: A short-term study	Yasakau K.A., Bastos A.C., Haffner D., Quandt E., Feyerabend F., Ferreira M.G.S., Zheludkevich M.L.	Corrosion Science	189				109590	2021	7.205	10.1016/j.corsci.2021.109590	Closed	MSE
352	A critical look at interpretation of electrochemical impedance spectra of sol-gel coated aluminium	Yasakau K.A., Sarykevich M., Ferreira M.G.S., Zheludkevich M.L.	Electrochimica Acta	378				138091	2021	6.901	10.1016/j.electacta.2021.138091	Closed	MSE
353	Plasma electrolytic oxidation technology for producing protective coatings of aluminum alloys	Yeshmanova, GB; Smagulov, DU; Blawert, C	KOMPLEKSNOE ISPOLZOVANIE MINERALNOGO SYRA		2	78	93		2021		10.31643/2021/6445.21	Gold	MSE
354	Effects of Y Additions on the Microstructures and Mechanical Behaviours of as Cast Mg-xY-0.5Zr Alloys	You S., Huang Y., Dieringa H., Maawad E., Gan W., Zhang Y., Kainer K.U., Willumeit-Römer R., Hort N.	Advanced Engineering Materials						2021	3862	10.1002/adem.202101033	Hybrid / Deal	MSE

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355	Influence of thermal treatment on the properties and intermolecular interactions of epoxidized natural rubber-salt systems	Zainal N.F.A., Ramli H., Fritz M., Abetz V., Chan C.H.	Pure and Applied Chemistry						2021	2.453	10.1515/pac-2020-0904	Closed	MSE
356	Controlled release of hydrogen by implantation of magnesium induces P53-mediated tumor cells apoptosis	Zan R., Wang H., Cai W., Ni J., Luthringer-Feyerabend B.J.C., Wang W., Peng H., Ji W., Yan J., Xia J., Song Y., Zhang X.	Bioactive Materials						2021	14.593	10.1016/j.bioactmat.2021.07.026	Gold	MSE
357	On factors defining the mechanical behavior of nanoporous gold	Zandersons B., Lührs L., Li Y., Weissmüller J.	Acta Materialia	215				116979	2021	8.203	10.1016/j.actamat.2021.116979	Hybrid	MSE
358	Computational modelling of magnesium degradation in simulated body fluid under physiological conditions	Zeller-Plumhoff B., AlBaraghteh T., Hóche D., Willumeit-Römer R.	Journal of Magnesium and Alloys	in press					2021	10.088	10.1016/j.jma.2021.11.014	Gold	MSE, MML
359	Exploring key ionic interactions for magnesium degradation in simulated body fluid – A data-driven approach	Zeller-Plumhoff B., Gile M., Priebe M., Slominska H., Boll B., Wiese B., Würger T., Willumeit-Römer R., Meißner R.H.	Corrosion Science	182				109272	2021	7.205	10.1016/j.corsci.2021.109272	Hybrid	MSE
360	Evaluating the morphology of the degradation layer of pure magnesium via 3D imaging at resolutions below 40 nm	Zeller-Plumhoff B., Laipple D., Slominska H., Iskhakova K., Longo E., Hermann A., Flenner S., Greving I., Storm M., Willumeit-Römer R.	Bioactive Materials	6	12	4368	4376		2021	14.593	10.1016/j.bioactmat.2021.04.009	Gold	MSE, MML
361	Utilizing Synchrotron Radiation for the Characterization of Biodegradable Magnesium Alloys—From Alloy Development to the Application as Implant Material	Zeller-Plumhoff B., Tolnai D., Wolff M., Greving I., Hort N., Willumeit-Römer R.	Advanced Engineering Materials	23	11			2100197	2021	3.862	10.1002/adem.202100197	Hybrid / Deal	MSE, MML
362	Damage tolerant design of additively manufactured metallic components subjected to cyclic loading: State of the art and challenges	Zerbst U., Bruno G., Buffière J.-Y., Wegener T., Niendorf T., Wu T., Zhang X., Kashaev N., Meneghetti G., Hrabec N., Madia M., Werner T., Hilgenberg K., Koukolíková M., Procházka R., Džugan J., Möller B., Beretta S., Evans A., Wagener R., Schnabel K.	Progress in Materials Science	121				100786	2021	39.580	10.1016/j.pmatsci.2021.100786	Closed	MSE

MSE
372 erschienene Hereon-Publikationen 2021
Quelle: Web of Science (Thomson Reuters) und Scopus (Elsevier)

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363	Mitochondrial Voltage-Dependent Anion Channel 1-Hexokinase-II Complex-Targeted Strategy for Melanoma Inhibition Using Designed Multiblock Peptide Amphiphiles	Zhang F., Angelova A., Garamus V.M., Angelov B., Tu S., Kong L., Zhang X., Li N., Zou A.	ACS Applied Materials and Interfaces	13	30	35281	35293		2021	9.229	10.1021/acsami.1c04385	Closed	MSE, MML
364	Multifunctionality in Polymer Networks by Dynamic of Coordination Bonds	Zhang P., Rešetić A., Behl M., Lendlein A.	Macromolecular Chemistry and Physics	222	3			2000394	2021	2.527	10.1002/macp.202000394	Hybrid / Deal	MSE
365	Recent trends on studies of nanostructured metals	Zhang X, Lilleodden E, Wang J	MRS Bulletin	46	3	217	224		2021	6.578	10.1557/s43577-021-00069-5	Closed	MSE
366	Interdiffusion and atomic mobility in hcp Mg-Al-Sn alloys	Zhang Y., Du C., Liu Y., Wen S., Liu S., Huang Y., Hort N., Du Y.	Journal of Alloys and Compounds	871				159517	2021	5.316	10.1016/j.jallcom.2021.159517	Closed	MSE
367	Double-Ligand Strategy to Construct an Inhibitor-Loaded Zn-MOF and Its Corrosion Protection Ability for Aluminum Alloy 2A12	Zhang Y., Wang J., Zhao S., Serdechnova M., Blawert C., Wang H., Zheludkevich M.L., Chen F.	ACS Applied Materials and Interfaces	13	43	51685	51694		2021	9.229	10.1021/acsami.1c13738	Closed	MSE
368	Hybrid Organic-Inorganic-Organic Isoporous Membranes with Tunable Pore Sizes and Functionalities for Molecular Separation	Zhang Z., Simon A., Abetz C., Held M., Höhme A.-L., Schneider E.S., Segal-Peretz T., Abetz V.	Advanced Materials						2021	30.849	10.1002/adma.202105251	Hybrid / Deal	MSE
369	Prediction of the epichlorohydrin derived cytotoxic substances from the eluent of poly(glycerol glycidyl ether) films	Zhou S., Xu X., Ma N., Jung F., Lendlein A.	MRS Advances						2021	Scopus	10.1557/s43580-021-00132-y	Hybrid / Deal	MSE
370	Defeating antibiotic-resistant bacteria with protein-resistant polyGGE film	Zhou, S., Di Luca, M., Xu, X., Ma, N., Jung, F., Lendlein, A.	Clinical Hemorheology and Microcirculation	79	4	609	623		2021	2.375	10.3233/CH-211250	Closed	MSE
371	Influence of sterilization conditions on sulfate-functionalized polyGGE	Zhou, S., Xu, X., Ma, N., Jung, F., Lendlein, A.	Clinical Hemorheology and Microcirculation	79	4	597	608		2021	2.375	10.3233/CH-211241	Closed	MSE
372	The video microscopy-linked electrochemical cell: An innovative method to improve electrochemical investigations of biodegradable metals	Zimmermann T., Hort N., Zhang Y., Müller W.-D., Schwitalla A.	Materials	14	7			1601	2021	3.623	10.3390/ma14071601	Gold	MSE

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1	Tube drawing with tilted die: Texture, dislocation density and mechanical properties	Al-Hamdany N., Salih M.Z., Palkowski H., Carradò A., Gan W., Schell N., Brokmeier H.-G.	Metals	11	4			638	2021	2.351	10.3390/met11040638	Gold	MSE, MML
2	Deformation-induced martensitic transformation in Co-28Cr-6Mo alloy produced by laser powder bed fusion: Comparison surface vs. bulk	Antunes L.H.M., Hoyos J.J., Andrade T.C., Sarvezuk P.W.C., Wu L., Ávila J.A., Oliveira J.P., Schell N., Jardini A.L., Žilková J., da Silva Farina P.F., Abreu H.F.G., Béreš M.	Additive Manufacturing	46				102100	2021	10.998	10.1016/j.addma.2021.102100	Closed	MML
3	Microengineered Hollow Graphene Tube Systems Generate Conductive Hydrogels with Extremely Low Filler Concentration	Arndt, C., M. Hauck, I. Wacker, B. Zeller-Plumhoff, F. Rasch, M. Taale, A. S. Nia, X. Feng, R. Adelung, R. R. Schröder, F. Schütt, C. Selhuber-Unkel	Nano Letters	21	8	3690	3697		2021	11.189	10.1021/acsnanolett.0c04375	Hybrid	MSE, MML
4	High Hydrogen Mobility in an Amide-Borohydride Compound Studied by Quasielastic Neutron Scattering	Aslan N., Gizer G., Pistidda C., Dornheim M., Müller M., Busch S., Lohstroh W.	Advanced Engineering Materials	23	11			2100620	2021	3.862	10.1002/ade.202100620	Hybrid / Deal	MSE, MML
5	Discovery of Iebambromyia in myanmar cretaceous amber: Phylogenetic and biogeographic implications (insecta, diptera, phoroidea)	Badano D., Zhang Q., Fratini M., Maugeri L., Bukreeva I., Longo E., Wilde F., Yeates D.K., Cerretti P.	Insects	12	4			354	2021	2.769	10.3390/insects12040354	Gold	MML
6	The Impact of Redox, Hydrolysis and Dehydration Chemistry on the Structural and Magnetic Properties of Magnetoferritin Prepared in Variable Thermal Conditions	Balejcikova, L.; Saksl, K.; Kovac, J.; Martel, A.; Garamus, V.M.; Avdeev, M.V.; Petrenko, V.I.; Almasy, L.; Kopcansky, P.	Molecules	26	22			6960	2021	4.588	10.3390/molecules26226960	Gold	MSE, MML
7	SiO ₂ -TiO ₂ Binary Aerogels: A Small-Angle Scattering Study	Baranchikov A.E., Kopitsa G.P., Yorov K.E., Sipyagina N.A., Lermontov S.A., Pavlova A.A., Kottsov S.Y., Garamus V.M., Ryukhtin V., Ivanov V.K.	Russian Journal of Inorganic Chemistry	66	6	874	882		2021	1.312	10.1134/S003602362106005X	Green	MSE, MML
8	Synchrotron-radiation computed tomography uncovers ecosystem functions of fly larvae in an eocene forest	Baranov V.A., Engel M.S., Hammel J., Hörnig M.K., van de Kamp T., Zuber M., Haug J.T.	Palaeontologia Electronica	24	1			a07	2021	1.500	10.26879/1129	Gold	MML

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9	Interface-Mediated Twinning-Induced Plasticity in a Fine Hexagonal Microstructure Generated by Additive Manufacturing	Barriobero-Vila, P. ; Vallejos, J. M. ; Gussone, J. ; Haubrich, J. ; Kelm, K. ; Stark, A. ; Schell, N. ; Requena, G.	Advanced Materials	33	52	1	8	2105096	2021	30.849	10.1002/adma.202105096	Hybrid	MSE, MML
10	Deformation kinetics of a TRIP steel determined by in situ high-energy synchrotron x-ray diffraction	Barriobero-Vila, P., Jerez-Mesa, R., Guitar, A., Gavaldà-Diaz, O., Travieso-Rodríguez, J.A., Stark, A., Schell, N., Llumà, J., Fargas, G., Mateo, A., Roa, J.J.	Materialia	20		1	10	101251	2021	8.203	10.1016/j.mta.2021.101251	Closed	MSE, MML
11	In-situ investigation of phase transformations in ultra-fine grained Ti15Mo alloy	Bartha, K., Stráský, J., Barriobero-Vila, P., Šmilauerová, J., Doležal, P., Veselý, J., Semenova, I., Polyakova, V., and Janeček, M.	Journal of Alloys and Compounds	867				159027	2021	5.316	10.1016/j.jallcom.2021.159027	Closed	MML
12	Correlative cross-sectional characterization of nitrided, carburized and shot-peened steels: synchrotron micro-X-ray diffraction analysis of stress, microstructure and phase gradients	Bodner, SC; Meindlhuber, M; Ziegelwanger, T; Winklmayr, H; Hatzenbichler, T; Schindelbacher, C; Sartory, B; Krobath, M; Ecker, W; Schell, N; Keckes, J	Journal of Materials Research and Technology	11		1396	1410		2021	5.039	10.1016/j.jmrt.2021.01.099	Gold	MML
13	A new species group of Strumigenys (Hymenoptera, Formicidae) from Ecuador, with a description of its mandible morphology	Booher, D. B., P. O. Hoenle	ZooKeys	1036		1	19		2021	Scopus	10.3897/zookeys.1036.62034	Gold	MML
14	Lithium deposition in single-ion conducting polymer electrolytes	Borzutzki, K., K. Dong, J. R. Nair, B. Wolff, F. Hausen, R.-A. Eichel, M. Winter, I. Manke, G. Brunklaus	Cell Reports Physical Science	2	7			100496	2021	Master Journal List, aber kein JIF	10.1016/j.xcrp.2021.100496	Gold	MML
15	Mechanism of LDH Direct Growth on Aluminum Alloy Surface: A Kinetic and Morphological Approach	Bouali A.C., Iuzviuk M.H., Serdechnova M., Yasakau K.A., Drozdenko D., Lutz A., Fekete K., Dovzhenko G., Wieland D.C.F., Terryn H., Ferreira M.G.S., Zobjkalo I.A., Zheludkevich M.L.	Journal of Physical Chemistry C	125	21	11687	11701		2021	4.126	10.1021/acs.jpcc.1c02281	Closed	MSE, MML

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16	Artifacts suppression in biomedical images using a guided filter	Bukreeva, I., A. Ingacheva, M. Fratini, A. Cedola, O. Junemann, E. Longo, F. Wilde, J. Moosmann, A. Buzmakov, Y. Krivososov, D. Zolotov, S. Saveliev, V. Asadchikov and M. Chukalina	Proceedings of SPIE – Thirteenth International Conference on Machine Vision					11605	2021	Scopus	10.1117/12.2587571	Green	MML
17	Interaction of nanoparticles with lipid films: the role of symmetry and shape anisotropy	Caselli L, Ridolfi A, Mangiapia G, Maltoni P, Moulin J.-F., Berti D, Steinke N.-J., Gustafsson E, Nylander T, Montis C.	Physical Chemistry Chemical Physics						2021	3.676	10.1039/d1cp03201a	Closed	MML
18	Microstructural influence on thermal behavior of arc deposited TiAlN coatings with high aluminum content	Chaar, A.B.B., Rogström, L., Johansson-Jöesaar, M.P., Barrirero, J., Aboulfadl, H., Schell, N., Ostach, D., Mücklich, F., and Odén, M.	Journal of Alloys and Compounds	854				157205	2021	5.316	10.1016/j.jallcom.2020.157205	Hybrid	MML
19	Ovipositor and mouthparts in a fossil insect support a novel ecological role for early orthopterans in 300 million years old forests	Chen, L., J.-J. Gu, Q. Yang, D. Ren, A. Blanke and O. Béthoux	eLife	10				e71006	2021	8.146	10.7554/eLife.71006	Gold	MML
20	New Insights into the Intermartensitic Transformation and Over 11% Magnetic Field-Induced Strain in 14 m Ni-Mn-Ga Martensite	Chulist R., Pagounis E., Czaja P., Schell N., Brokmeier H.-G.	Advanced Engineering Materials	23	11			2100131	2021	3.862	10.1002/ade.202100131	Closed	MML
21	Effect of the as-built microstructure on the martensite to austenite transformation in a 18Ni maraging steel after laser-based powder bed fusion	Conde F.F., Avila J.A., Oliveira J.P., Schell N., Oliveira M.F., Escobar J.D.	Additive Manufacturing	46				102122	2021	10.998	10.1016/j.addma.2021.102122	Closed	MML
22	Recovery of severely deformed ferrite studied by in situ high energy x-ray diffraction	Couchet, C., Allain, S.Y.P., Geandier, G., Teixeira, J., Gaudez, S., Macchi, J., Lamari, M., and Bonnet, F.	Materials Characterization	179				111378	2021	4.342	10.1016/j.matchar.2021.111378	Closed	MML
23	Suppression and Recovery of Martensitic Transformation and Magnetism in Mechanically and Thermally Treated Magnetic Shape-Memory Ni-Mn-Ga Melt-Spun Ribbons	Czaja P., Chulist R., Wójcik A., Kowalczyk M., Zackiewicz P., Szweczyk A., Schell N., Maziarz W.	Advanced Engineering Materials	23	11			2100075	2021	3.862	10.1002/ade.202100075	Closed	MML

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24	Effect of B addition on the superelasticity in FeNiCoAlTi single crystals	Czerny M., Cios G., Maziarz W., Chumlyakov Y.I., Schell N., Chulist R.	Materials and Design	197				109225	2021	7.991	10.1016/j.matdes.2020.109225	Gold	MML
25	Exploration of changes in spatial chondrocyte organisation in human osteoarthritic cartilage by means of 3D imaging	Danalache M., Beutler K.R., Rolauffs B., Wolfgart J.M., Bonnaire F.C., Fischer S., Greving I., Hofmann U.K.	Scientific Reports	11	1			9783	2021	4.379	10.1038/s41598-021-89582-w	Gold	MML
26	Location and arrangement of campaniform sensilla in Drosophila melanogaster	Dinges, G. F., A. S. Chockley, T. Bockemühl, K. Ito, A. Blanke, A. Büschges	Journal of Comparative Neurology	529	4	905	925		2021	3.215	10.1002/cne.24987	Hybrid	MML
27	Examples of High-energy X-ray Structural Studies at PETRA III: High T C Superconductors, Real-time Surface and Thin Film Processes, and Design of Engineering Materials	Dippel, A.-C.; V. Zimmermann, M.; Staron, P.; Schneider, J. R.	Synchrotron Radiation News	33	6	24	30		2021	Scopus	10.1080/08940886.2020.1841493	Closed	MML
28	Solid-solid phase transformations and their kinetics in ti-al-nb alloys	Distl, B., Hauschildt, K., Pyczak, F., Stein, F.	Metals	11	12				2021	2.351	10.3390/met11121991	Gold	MSE, MML
29	A Diazirine-Modified Membrane Lipid to Study Peptide/Lipid Interactions – Chances and Challenges	Dorner J., Korn P., Gruhle K., Ramsbeck D., Garamus V.M., Lillie H., Meister A., Schwieger C., Ihling C., Sinz A., Drescher S.	Chemistry – A European Journal	27	59	14586	14593		2021	5.236	10.1002/chem.202102048	Hybrid	MSE, MML
30	Wire and Arc Additive Manufacturing of High-Strength Low-Alloy Steel: Microstructure and Mechanical Properties	Duarte V.R., Rodrigues T.A., Schell N., Santos T.G., Oliveira J.P., Miranda R.M.	Advanced Engineering Materials	23	11				2021	3.862	10.1002/ade.202001036	Closed	MML
31	Topological Analysis of the Experimental Electron Density in Multiferroic Antiferromagnet Ba2MnGe2O7	Dutta R., Thoma H., Chernyshov D., Nafradi B., Masuda T., Kriele A., Hutanu V.	IEEE Transactions on Magnetics						2021	1.700	10.1109/TMAG.2021.3082692	Closed	MML
32	Influence of partitioning parameters on the mechanical stability of austenite in a Q&P steel: A comparative in-situ study	Ebner S., Schnitzer R., Maawad E., Suppan C., Hofer C.	Materialia	15				101033	2021	Scopus	10.1016/j.mta.2021.101033	Hybrid	MML

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33	Grain boundary formation through particle detachment during coarsening of nanoporous metals	Elder K.L.M., Beck Andrews W., Ziehmer M., Mameka N., Kirchlechner C., Davydok A., Micha J.-S., Chadwick A.F., Lilleodden E.T., Thornton K., Voorhees P.W.	Proceedings of the National Academy of Sciences of the United States of America	118	30			e2104132118	2021	11.205	10.1073/pnas.2104132118	Closed	MSE, MML
34	On the texture and superstructure formation in Ti-TiAl3-Al MIL composites	Emurlaeva, Y.Y., Ivanov, I.V., Lazurenko, D.V., Ogneva, T.S., Chen, P., Zhou, Q., Bataev, A.A., Ruktuev, A.A., Tanaka, S., and Bataev, I.A.	Intermetallics	135	4			107231	2021	3.758	10.1016/j.intermet.2021.107231	Closed	MML
35	Multimodal analysis of spatially heterogeneous microstructural refinement and softening mechanisms in three-pass friction stir processed Al-4Si alloy	Escobar J., Gwalani B., Olszta M., Silverstein J., Overman N., Bergmann L., dos Santos J.F., Staron P., Maawad E., Klusemann B., Mathaudhu S., Devaraj A.	Journal of Alloys and Compounds	887				161351	2021	5.316	10.1016/j.jallcom.2021.161351	Closed	MSE, MML
36	Response of ferrite, cementite, bainite, martensite, and retained austenite to a fire cycle in a fire-resistant steel	Escobar, J.D., Gomes, P.M., Ariza-Echeverri, E.A., Carvalho, F.M., Schell, N., Stark, A., Rodrigues, T.A., Oliveira, J.P., Avila, J.A., Goldenstein, H., and Tschiptschin, A.P.	Materials Characterization	182				111567	2021	4.342	10.1016/j.matchar.2021.111567	Closed	MSE, MML
37	First-Time Investigations on Cavitation in Rubber Parts Subjected to Constrained Tension Using In Situ Synchrotron X-Ray Microtomography (SR μ CT)	Euchler, E., R. Bernhardt, F. Wilde, K. Schneider, G. Heinrich, T. Tada, S. Wießner, M. Stommel	Advanced Engineering Materials	23	11			2001347	2021	3.862	10.1002/ade.202001347	Hybrid	MML
38	The temperature effect on the plastic deformation of the Mg88Zn7Y5 alloy with LPSO phase studied by in-situ synchrotron radiation diffraction	Fekete K., Farkas G., Drozdenko D., Tolnai D., Stark A., Dobroń P., Garcés G., Máthis K.	Intermetallics	138				107321	2021	3.758	10.1016/j.intermet.2021.107321	Closed	MSE, MML
39	X-ray diffraction and in situ pressurization of dentine apatite reveals nanocrystal modulus stiffening upon carbonate removal	Forien J.-B., Uzuhashi J., Ohkubo T., Hono K., Luo L., Schwarcz H.P., Deymier A.C., Krywka C., Fleck C., Zaslansky P.	Acta Biomaterialia	120		91	103		2021	8.947	10.1016/j.actbio.2020.09.004	Closed	MML
40	In-situ synchrotron x-ray diffraction during quenching and tempering of SAE 52100 steel	Foster, D., Paladugu, M., Hughes, J., Kapousidou, M., Islam, U., Stark, A., Schell, N., and Jimenez-Melero, E.	Materials Today Communication	29		1	11	102930	2021	3.383	10.1016/j.mtcomm.2021.102930	Closed	MSE, MML

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41	In situ investigation of the oxidation behaviour of chemical vapour deposited Zr(C,N) hard coatings using synchrotron x-ray diffraction	Frank F., Tkadletz M., Saringer C., Stark A., Schell N., Deluca M., Czettel C., Schalk N.	Coatings	11	3	1	16	264	2021	2.881	10.3390/coatings1030264	Gold	MSE, MML
42	Coming together - Symbiont acquisition and early development in deep-sea bathymodioline mussels	Franke M., Geier B., Hammel J.U., Dubilier N., Leisch N.	Proceedings of the Royal Society B: Biological Sciences	288	1957			20211044	2021	5.349	10.1098/rspb.2021.1044	Hybrid	MML
43	In situ high-energy X-ray diffraction of precipitation and dissolution reactions during heating of Al alloys	Fröck, H.; Rowolt, C.; Milkereit, B.; Reich, M.; Kowalski, W.; Stark, A.; Keßler, O.	Journal of Materials Science	56		19697	19708		2021	4.220	10.1007/s10853-021-06548-z	Hybrid	MSE, MML
44	Texture-Based Optimization of Crystal Plasticity Parameters: Application to Zinc and Its Alloy	Frydrych K., Jarzębska A., Virupakshi S., Kowalczyk-Gajewska K., Bieda M., Chulist R., Skorupska M., Schell N., Sztwiertnia K.	Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science	52	8	3257	3273		2021	2.556	10.1007/s11661-021-06285-7	Hybrid	MML
45	Revealing joining mechanism in refill friction stir spot welding of AZ31 magnesium alloy to galvanized DP600 steel	Fu B., Shen J., Suhuddin U.F.H.R., Pereira A.A.C., Maawad E., dos Santos J.F., Klusemann B., Rethmeier M.	Materials and Design	209				109997	2021	7.991	10.1016/j.matdes.2021.109997	Gold	MSE, MML
46	Improved mechanical properties of cast Mg alloy welds via texture weakening by differential rotation refill friction stir spot welding	Fu, B., Shen, J., Suhuddin, U.F.H.R., Chen, T., dos Santos, J., Klusemann, B., Rethmeier, M.	Scripta Materialia	203				114113	2021	5.611	10.1016/j.scriptamat.2021.114113	Hybrid	MSE, MML
47	Characterization of rapidly solidified Al-Mg-Sc alloys with Li addition	Gancarz T., Dobosz A., Bogno A.-A., Cempura G., Schell N., Chulist R., Henein H.	Materials Characterization	178				111290	2021	4.342	10.1016/j.matchar.2021.111290	Hybrid	MML
48	Electrochemical Surface Structuring for Strong SMA Wire-Polymer Interface Adhesion	Gapeeva A., Vogtmann J., Zeller-Plumhoff B., Beckmann F., Gurka M., Carstensen J., Adlung R.	ACS Applied Materials and Interfaces	13	18	21924	21935		2021	9.229	10.1021/acami.1c00807	Closed	MSE, MML
49	Degradation of titanium sintered with magnesium: Effect of hydrogen uptake	Garamus V.M., Limberg W., Serdechnova M., Mei D., Lamaka S.V., Ebel T., Willumeit-Römer R.	Metals	11	4			527	2021	2.351	10.3390/met11040527	Gold	MSE, MML

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50	Load Partitioning Between Mg ₁₇ Al ₁₂ Precipitates and Mg Phase in the AZ91 Alloy Using In-Situ Synchrotron Radiation Diffraction Experiments	Garces G., Medina J., Chávez B., Perez P., Barea R., Stark A., Schell N., Adeva P.	Metallurgical and Materials Transactions A	52	7	2732	2745		2021	2.556	10.1007/s11661-021-06258-w	Closed	MSE, MML
51	Ternary Nanoswitches Realized with Multiresponsive PMMA-b-PNIPAM Films in Mixed Water/Acetone Vapor Atmospheres	Geiger C., Reitenbach J., Henschel C., Kreuzer L.P., Widmann T., Wang P., Mangiapia G., Moulin J.-F., Papadakis C.M., Laschewsky A., Müller-Buschbaum P.	Advanced Engineering Materials	23	11			2100191	2021	3.862	10.1002/ade.202170043 10.1002/ade.202100191	Hybrid	MML
52	The first fossil of the pseudoscorpion family Ideoroncidae (Arachnida: Pseudoscorpiones): a new taxon from the mid-Cretaceous of northern Myanmar	Geißler, C., U. Kotthoff, J. Hammel, M. S. Harvey, D. Harms	Cretaceous Research					105030	2021	2.176	10.1016/j.cretres.2021.105030	Closed	MML
53	Deformation Behavior of Cross-Linked Supercrystalline Nanocomposites: An in Situ SAXS/WAXS Study during Uniaxial Compression	Giuntini D., Davydok A., Blankenburg M., Domènech B., Bor B., Li M., Scheider I., Krywka C., Müller M., Schneider G.A.	Nano Letters	21	7	2891	2897		2021	11.189	10.1021/acs.nanolett.0c05041	Hybrid	MSE, MML
54	Defects and plasticity in ultrastrong supercrystalline nanocomposites	Giuntini D., Zhao S., Krekeler T., Li M., Blankenburg M., Bor B., Schaan G., Domènech B., Müller M., Scheider I., Ritter M., Schneider G.A.	Science Advances	7	2			eabb6063	2021	14.136	10.1126/sciadv.abb6063	Gold	MSE, MML
55	In Situ Investigation of the Rapid Solidification Behavior of Intermetallic γ -TiAl-Based Alloys Using High-Energy X-Ray Diffraction	Graf G., Rosigkeit J., Krohmer E., Staron P., Krenn R., Clemens H., Spoerk-Erdely P.	Advanced Engineering Materials	23	11			2100557	2021	3.862	10.1002/ade.202100557	Hybrid	MML
56	High-resolution and sensitivity bi-directional x-ray phase contrast imaging using 2D Talbot array illuminators	Gustschin, A.; Riedel, M.; Taphorn, K.; Petrich, C.; Gottwald, W.; Noichl, W.; Busse, M.; Francis, S.; Beckmann, F.; Hammel, J. U.; Moosmann, J.; Thibault, P.; Herzen, J.	Optica	8	12	1588	1595		2021	11.104	10.1364/OPTICA.441004	Gold	MML
57	Texture development and dislocation activities in Mg-Nd and Mg-Ca alloy sheets	Ha, C; Bohlen, J; Zhou, X; Brokmeier, HG; Kainer, KU; Schell, N; Letzig, D; Yi, S	Materials Characterization	175				111044	2021	4.342	10.1016/j.matchar.2021.111044	Hybrid	MSE, MML

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58	Anomalies in the vertebral column and ilio-sacral articulation of some anuran amphibians	Haas, A; Schwippert, S; Busse, S; Kleinteich, T; Beerlink, A; Hammel, JU; Kohnk, S; Gorb, S; Engelkes, K	SALAMANDRA	57	1	53	64		2021	1.911		Closed	MML
59	In situ Observation of Ternary Eutectic Growth in a Directionally Solidified Mo-Si-B Alloy Using High-Energy Synchrotron X-Rays	Hasemann G., Zhu L., Hauschildt K., Blankenburg M., Ida S., Pyczak F., Yoshimi K., Krüger M.	Advanced Engineering Materials	23	11			2100111	2021	3.862	10.1002/ade.m.202100111	Hybrid	MSE, MML
60	Texas beetle larvae (Brachypsectridae) – the last 100 million years reviewed	Haug, J.; Zippel, A.; Haug, G.; Hoffeins, C.; Hoffeins, H.; Hammel, J.; Baranov, V.; Haug, C.	Palaeodiversity	14	1	161	183		2021	Master Journal List, aber kein JIF	10.18476/pale.v14.a8	Gold	MML
61	Modeling precipitation kinetics for multi-phase and multi-component systems using particle size distributions via a moving grid technique	Herrnring J., Sundman B., Staron P., Klusemann B.	Acta Materialia	215				117053	2021	8.203	10.1016/j.actamat.2021.117053	Hybrid	MSE, MML
62	The tracheal system of scutigermorph centipedes and the evolution of respiratory systems of myriapods	Hilken G., Rosenberg J., Edgecombe G.D., Blüml V., Hammel J.U., Hasenberg A., Sombke A.	Arthropod Structure and Development	60				101006	2021	2.010	10.1016/j.asd.2020.101006	Hybrid	MML
63	Rational Designed Hybrid Peptides Show up to a 6-Fold Increase in Antimicrobial Activity and Demonstrate Different Ultrastructural Changes as the Parental Peptides Measured by BioSAXS	Hilpert, K.; Gani, J.; Rumancev, C.; Simpson, N.; Lopez-Perez, P.M.; Garamus, V.M.; von Gundlach, A.R.; Markov, P.; Scocchi, M.; Mikut, R., Rosenhahn, A.	Frontiers in Pharmacology	12				769739	2021	Scopus	10.3389/fphar.2021.769739	Gold	MSE, MML
64	Evaporation kinetics in highly porous tetrapodal zinc oxide networks studied using in situ SRμCT	Hindenlang, B., Gapeeva, A., Baum, M.J., Kaps, S., Saure, L.M., Rasch, F., Hammel, J., Moosmann, J., Storm, M., Adelong, R., Schütt, F., Zeller-Plumhoff, B.	Scientific Reports	11				20272	2021	4.379	10.1038/s41598-021-99624-y	Gold	MSE, MML
65	Ion irradiation-induced localized stress relaxation in W thin film revealed by cross-sectional X-ray nanodiffraction	Hlushko K., Mackova A., Zalesak J., Burghammer M., Davydok A., Krywka C., Daniel R., Keckes J., Todt J.	Thin Solid Films	722				138571	2021	2.183	10.1016/j.tsf.2021.138571	Closed	MML

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66	New insight into deformation induced α variant selection in a metastable β titanium alloy during isothermal compression at 600 °C	Hua K., Zhang F., Kou H., Wan Q., Zhang Y., Gan W., Li J.	Progress in Natural Science: Materials International	31	3	471	476		2021	3.607	10.1016/j.pnsc.2021.04.005	Gold	MML, LK II
67	The Influence of In Situ Anatase Particle Addition on the Formation and Properties of Multifunctional Plasma Electrolytic Oxidation Coatings on AA2024 Aluminum Alloy	Ignjatović S., Blawert C., Serdechnova M., Karpushenkov S., Damjanović M., Karlova P., Dovzhenko G., Wieland D.C.F., Zeller-Plumhoff B., Sarykevich M., Stojanović S., Damjanović-Vasilić L., Zheludkevich M.L.	Advanced Engineering Materials	23	11				2021	3.862	10.1002/ade.202001527	Hybrid / Deal	MSE, MML
68	Formation of multi-functional TiO ₂ surfaces on AA2024 alloy using plasma electrolytic oxidation	Ignjatović S., Blawert C., Serdechnova M., Karpushenkov S., Damjanović M., Karlova P., Wieland D.C.F., Sarykevich M., Stojanović S., Damjanović-Vasilić L., Zheludkevich M.L.	Applied Surface Science	544				148875	2021	6.707	10.1016/j.apsusc.2020.148875	Hybrid	MSE, MML
69	Functionalized material production via multi-stack Upward Friction Stir Processing (UFSP)	Inácio P.L., Nogueira F., Ferreira F.B., Vidal C., Schell N., Tero T., Vilaça P., Oliveira J.P., Santos T.G.	Materials and Manufacturing Processes						2021	4.616	10.1080/10426914.2021.1942909	Closed	MML
70	Utilizing x-ray diffraction tomography to study the effect of biodegradable magnesium implants on the bone ultrastructure	Iskhakova K., Wieland D. F., Zeller-Plumhoff B., Willumeit-Römer R.	Proc. SPIE	11840					2021	Scopus	10.1117/12.2593704	Closed	MSE, MML
71	Simulating permeability reduction by clay mineral nanopores in a tight sandstone by combining computer X-ray microtomography and focussed ion beam scanning electron microscopy imaging	Jacob, A., M. Peltz, S. Hale, F. Enzmann, O. Moravcova, L. N. Warr, G. Grathoff, P. Blum, M. Kersten	Solid Earth	12	1	1	14		2021	3.337	10.5194/se-12-1-2021	Gold	MML
72	Local Strain Distribution in ZnO Microstructures Visualized with Scanning Nano X-Ray Diffraction and Impact on Electrical Properties	Jordt P., Hrkac S.B., Gröttrup J., Davydok A., Krywka C., Wolff N., Kienle L., Adelong R., Magnussen O.M., Murphy B.M.	Advanced Engineering Materials	23	11			2100201	2021	3.862	10.1002/ade.202170045 10.1002/ade.202100201	Hybrid	MSE, MML
73	TaC Precipitation Kinetics During Cooling of Co-Re-Based Alloys	Karge L., Gilles R., Hofmann M., Mukherji D., Rösler J., Honecker D., Beran P., Strunz P., Schell N., Busch S.	Advanced Engineering Materials	23	11			2100129	2021	3.862	10.1002/ade.202100129	Hybrid / Deal	MML

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74	Characterization of LiBH ₄ -MgH ₂ Reactive Hydride Composite System with Scattering and Imaging Methods Using Neutron and Synchrotron Radiation	Karimi F., Bőrries S., Pranzas P.K., Metz O., Hoell A., Gizer G., Puzkiel J.A., Riglos M.V.C., Pistidda C., Dornheim M., Klassen T., Schreyer A.	Advanced Engineering Materials	23	11			2100294	2021	3.862	10.1002/ade.m.202100294	Hybrid / Deal	MSE, MML
75	A comprehensive study on lithium-based reactive hydride composite (Li-RHC) as a reversible solid-state hydrogen storage system toward potential mobile applications	Karimi F., Pranzas P.K., Puzkiel J.A., Castro Riglos M.V., Milanese C., Vainio U., Pistidda C., Gizer G., Klassen T., Schreyer A., Dornheim M.	RSC Advances	11	37	23122	23135		2021	3.361	10.1039/d1ra03246a	Gold	MSE, MML
76	Evolution of the crystal structure and magnetic properties of Sm-doped BiFeO ₃ ceramics across the phase boundary region	Karpinsky D.V., Pakalniškis A., Niaura G., Zhaludkevich D.V., Zhaludkevich A.L., Latushka S.I., Silibin M., Serdechnova M., Garamus V.M., Lukowiak A., Stręk W., Kaya M., Skaudžius R., Kareiva A.	Ceramics International	47	4	5399	5406		2021	4.527	10.1016/j.ceramint.2020.10.120	Closed	MSE, MML
77	On the prediction of fatigue crack growth based on weight functions in residual stress fields induced by laser shock peening and laser heating	Kashaev N., Keller S., Staron P., Maawad E., Huber N.	Fatigue and Fracture of Engineering Materials and Structures						2021	3.459	10.1111/ffe.13579	Hybrid / Deal	MSE, MML
78	In Situ Synchrotron X-Ray Diffraction during High-Pressure Torsion Deformation of Ni and NiTi	Kerber M.B., Spieckermann F., Schuster R., von Baeckmann C., Fischer T., Schell N., Waitz T., Schafler E.	Advanced Engineering Materials	23	11				2021	3.862	10.1002/ade.m.202100159	Hybrid	MML
79	50 Hz X-Ray Diffraction Stress Analysis and Numerical Process Simulation at Laser Surface Line Hardening of Web Structures	Kiefer D., Lang F., Simon N., Beckmann F., Wilde F., Gibmeier J.	Advanced Engineering Materials	23	11			2100119	2021	3.862	10.1002/ade.m.202100119	Hybrid	MML
80	Real-time stress evolution during laser surface line hardening at varying maximum surface temperatures using synchrotron X-ray diffraction	Kiefer D., Simon N., Beckmann F., Wilde F., Gibmeier J.	Optics and Laser Technology	140				106964	2021	3.867	10.1016/j.optlastec.2021.10.6964	Closed	MML
81	Microstructure evolution induced by the intrinsic heat treatment occurring during wire-arc additive manufacturing of an Al-Mg-Zn-Cu crossover alloy	Klein T., Graf G., Staron P., Stark A., Clemens H., Spoerk-Erdely P.	Materials Letters	303				130500	2021	3.423	10.1016/j.matlet.2021.130500	Closed	MSE, MML

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82	Formation of chondrule analogs aboard the International Space Station	Koch T.E., Spahr D., Tkalcic B.J., Lindner M., Merges D., Wilde F., Winkler B., Brenker F.E.	Meteoritics and Planetary Science	56	9	1669	1684		2021	2.487	10.1111/maps.13731	Hybrid	MML
83	Powder diffraction computed tomography: A combined synchrotron and neutron study	Kochetov V., Mühlbauer M.J., Schökel A., Fischer T., Müller T., Hofmann M., Staron P., Lienert U., Petry W., Senyshyn A.	Journal of Physics Condensed Matter	33	10			105901	2021	2.333	10.1088/1361-648X/abcdb0	Hybrid	MML
84	Three-dimensional imaging of xylem at cell wall level through near field nano holotomography	Koddenberg T., Greving I., Hagemann J., Flenner S., Krause A., Laipple D., Klein K.C., Schmitt U., Schuster M., Wolf A., Seifert M., Ludwig V., Funk S., Militz H., Nopens M.	Scientific Reports	11	1			4574	2021	4.379	10.1038/s41598-021-83885-8	Gold	MML
85	Salt-Dependent Phase Transition Behavior of Doubly Thermoresponsive Poly(sulfobetaine)-Based Diblock Copolymer Thin Films	Kreuzer L.P., Widmann T., Geiger C., Wang P., Vagias A., Heger J.E., Haese M., Hildebrand V., Laschewsky A., Papadakis C.M., Müller-Buschbaum P.	Langmuir	37	30	9179	9191		2021	3.882	10.1021/acs.langmuir.1c01342	Closed	MML
86	Reflectometry with Polarized Neutrons on In Situ Grown Thin Films	Kreuzpaintner W., Schmehl A., Book A., Mairoser T., Ye J., Wiedemann B., Mayr S., Moulin J.-F., Stahn J., Gilbert D.A., Gabold H., Inanloo-Maranloo Z., Heigl M., Masalovich S., Georgii R., Albrecht M., Mannhart J., Böni P.	Physica Status Solidi (B) Basic Research						2021	1.710	10.1002/pssb.202100153	Hybrid	MML
87	Assessing the microstructure and in vitro degradation behavior of Mg-xGd screw implants using μ CT	Krueger, D.; Zeller-Plumhoff, B.; Wiese, B.; Yi, S.; Zuber, M.; Wieland, F.; Moosmann, J.; Willumeit, R.	Journal of magnesium and alloys						2021	Scopus	10.1016/j.jma.2021.07.029	Gold	MSE, MML
88	High-resolution ex vivo analysis of the degradation and osseointegration of Mg-xGd implant screws in 3D	Krüger, D., S. Galli, B. Zeller-Plumhoff, D. C. F. Wieland, N. Peruzzi, B. Wiese, P. Heuser, J. Moosmann, A. Wennerberg and R. Willumeit-Römer	Bioactive Materials	13		37	52		2021	8.724	10.1016/j.bioactmat.2021.10.041	Gold	MSE, MML
89	Deformation mechanisms in Ni-based superalloys at room and elevated temperatures studied by in Situ neutron diffraction and electron microscopy	Kümmel F., Kirchmayer A., Solís C., Hofmann M., Neumeier S., Gilles R.	Metals	11	5			719	2021	2.351	10.3390/met11050719	Gold	MML

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90	In situ synchrotron X-ray diffraction study of reaction routes in Ti-Al3Ti-based composites: The effect of transition metals on L12 structure stabilization	Lazurenko D.V., Lozanov V.V., Stark A., Pyczak F., Ruktuev A.A., Emurlaev K.I., Song L., Bataev I.A., Ivanov I.V., Ogneva T.S., Bataev A.A.	Journal of Alloys and Compounds	875				160004	2021	5.316	10.1016/j.jallcom.2021.160004	Closed	MSE, MML
91	Structure and properties of Ti-Al-Ta and Ti-Al-Cr cladding layers fabricated on titanium	Lazurenko, D.V., Golkovsky, M.G., Stark, A., Pyczak, F., Bataev, I.A., Ruktuev, A.A., Petrov, I.Y., and Laptev, I.S.	Metals	11	7	1139			2021	2.351	10.3390/met11071139	Gold	MSE, MML
92	A Unique Quenching and Deformation Dilatometer for Combined In Situ Neutron Diffraction Analysis of Engineering Materials	Li X., Hofmann M., Landesberger M., Reiberg M., Zhang X., Huang Y., Wang L., Werner E., Gan W.	Advanced Engineering Materials	23	11				2021	3.862	10.1002/ade.202170046 10.1002/ade.202100163	Hybrid / Deal	MSE, MML
93	Influence of small amounts of Si and Cr on the high temperature oxidation behavior of novel cobalt base superalloys	Liang Z., Göken M., Lorenz U., Neumeier S., Oehring M., Pyczak F., Stark A., Wang L.	Corrosion Science	184				109388	2021	7.205	10.1016/j.corsci.2021.109388	Closed	MSE, MML
94	Breaking the continuity of the Al2O3 oxide scale by additions of Cr in Co-Al-W-based superalloys	Liang Z., Pyczak F., Stark A., Rao Z., Neumeier S., Göken M.	Corrosion Science	189				109594	2021	7.205	10.1016/j.corsci.2021.109594	Closed	MSE, MML
95	Neuromodulation Can Be Simple: Myoinhibitory Peptide, Contained in Dedicated Regulatory Pathways, Is the Only Neurally-Mediated Peptide Modulator of Stick Insect Leg Muscle	Liessem, S., D. Kowatschew, S. Dippel, A. Blanke, S. Korsching, C. Guschlbauer, S. L. Hooper, R. Predel and A. Büschges	The Journal of Neuroscience	41	13	2911			2021	6.167	10.1523/JNEUROSCI.0188-20.2021	Hybrid	MML
96	In-Situ High-Energy X-ray Diffraction Study of Austenite Decomposition During Rapid Cooling and Isothermal Holding in Two HSLA Steels	Lin S., Borggren U., Stark A., Borgenstam A., Mu W., Hedström P.	Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science	52	5	1812	1825		2021	2.556	10.1007/s11661-021-06192-x	Hybrid	MSE, MML

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97	In situ observation of competitive growth of α grains during $\beta \rightarrow \alpha$ transformation in laser beam manufactured TiAl alloys	Liu J., Wu T., Wang M., Wang L., Zhou Q., Wang K., Staron P., Schell N., Huber N., Kashaev N.	Materials Characterization	179				111371	2021	4.342	10.1016/j.matchar.2021.111371	Closed	MSE, MML
98	Creep-induced ω phase precipitation and cavity formation in a cast 45.5Ti-45Al-9Nb-0.5B alloy	Liu X., Song L., Stark A., Lazurenko D., Pyczak F., Zhang T.	Journal of Alloys and Compounds	875				160106	2021	5.316	10.1016/j.jallcom.2021.160106	Closed	MSE, MML
99	Deformation and phase transformation behaviors of a high Nb-containing TiAl alloy compressed at intermediate temperatures	Liu X., Song L., Stark A., Lorenz U., He Z., Lin J., Pyczak F., Zhang T.	Journal of Materials Science and Technology	102		89	96		2021	8.067	10.1016/j.jmst.2021.06.041	Closed	MSE, MML
100	3D Spatial Distribution of Nanoparticles in Mice Brain Metastases by X-ray Phase-Contrast Tomography	Longo E., Sancey L., Cedola A., Barbier E.L., Bravin A., Brun F., Bukreeva I., Fratini M., Massimi L., Greving I., Le Duc G., Tillement O., De La Rochefoucauld O., Zeitoun P.	Frontiers in Oncology	11				554668	2021	6.244	10.3389/fonc.2021.554668	Gold	MML
101	Adsorption-induced deformation of hierarchical organised carbon materials with ordered, non-convex mesoporosity	Ludescher L., Morak R., Braxmeier S., Balzer C., Putz F., Busch S., Hüsing N., Reichenauer G., Gor G.Y., Paris O.	Molecular Physics	119	15-16			e1894362	2021	1.962	10.1080/00268976.2021.1894362	Hybrid	MML
102	In situ synchrotron X-ray diffraction study of continuous cooling transformations of TIMETAL 54M	Maawad E., Stark A.	Journal of Alloys and Compounds	881				160602	2021	5.316	10.1016/j.jallcom.2021.160602	Closed	MSE, MML
103	Dislocation densities in a low-carbon steel during martensite transformation determined by in situ high energy x-ray diffraction	Macchi, J., Gaudez, S., Geandier, G., Teixeira, J., Denis, S., Bonnet, F., and Allain, S.Y.P.	Materials Science and Engineering A	800				140249	2021	5.234	10.1016/j.msea.2020.140249	Closed	MML
104	Degradation analysis of thin mg-xag wires using x-ray near-field holotomography	Meyer S., Wolf A., Sanders D., Iskhakova K., Ćwieka H., Bruns S., Flenner S., Greving I., Hagemann J., Willumeit-Römer R., Wiese B., Zeller-Plumhoff B.	Metals	11	9			1422	2021	2.351	10.3390/met11091422	Gold	MSE, MML
105	First steps toward suctorial feeding in millipedes: Comparative morphology of the head of the Platydesmida (Diplopoda: Colobognatha)	Moritz, L., A. Blanke, J. U. Hammel, T. Wesener	Invertebrate Biology	140	2			e12312	2021	1.250	10.1111/ivb.12312	Hybrid	MML

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106	Neutrons and Synchrotron Radiation - Unique Tools for the Characterization of Materials	Muller, M.; Busch, S.; Krywka, C.; Moulin, J.-.; Pyczak, F.; Staron, P.; Thiry, M.	Advanced Engineering Materials	23	11			2101374	2021	3.862	10.1002/ade.m.202101374	Closed	MSE, MML
107	Comparison of a low carbon steel processed by Cold Rolling (CR) and Asymmetrical Rolling (ASR): Heterogeneity in strain path, texture, microstructure and mechanical properties	Muñoz J.A., Avalos M., Schell N., Brokmeier H.G., Bolmaro R.E.	Journal of Manufacturing Processes	64		557	575		2021	5.010	10.1016/j.jmpro.2021.02.017	Closed	MML
108	Capillarity and active cell movement at mesoderm translocation in the xenopus gastrula	Nagel M., Barua D., Damm E.W., Kashef J., Hofmann R., Ershov A., Cecilia A., Moosmann J., Baumbach T., Winklbauer R.	Development (Cambridge)	148	18			198960	2021	6.868	10.1242/DEV.198960	Closed	MML
109	Parallel evolution of direct development in frogs - Skin and thyroid gland development in African Squeaker Frogs (Anura: Arthroleptidae: Arthroleptis)	Naumann B., Schweiger S., Hammel J.U., Müller H.	Developmental Dynamics	250	4	584	600		2021	3.780	10.1002/dvdy.275	Closed	MML
110	Capturing Centimeter-Scale Local Variations in Paper Pore Space via μ -CT: A Benchmark Study Using Calendered Paper	Neumann, M., E. Machado Charry, E. Baikova, A. Hilger, U. Hirn, R. Schennach, I. Manke, V. Schmidt and K. Zojer	Microscopy and Microanalysis			1	11		2021	Scopus	10.1017/S1431927621012563	Hybrid	MML
111	Partitioning Behavior of Nb, Ta, and Zr in Fully Lamellar γ/α_2 Titanium Aluminides and Its Effect on the Lattice Misfit and Creep Behavior	Neumeier S., Bresler J., Zenk C., Haußmann L., Stark A., Pyczak F., Göken M.	Advanced Engineering Materials	23	11			2100156	2021	3.862	10.1002/ade.m.202100156	Hybrid	MSE, MML
112	In situ visualizing the interplay between the separator and potassium dendrite growth by synchrotron X-ray tomography	Ni, L., M. Osenberg, H. Liu, A. Hilger, L. Chen, D. Zhou, K. Dong, T. Art, X. Yao, X. Wang, Y. Chen, Y. Li, K. Zhao, C. Yang, I. Manke, F. Sun, R. Chen	Nano Energy	83				105841	2021	17.881	10.1016/j.nanoen.2021.105841	Closed	MML
113	An In Situ High-Energy Synchrotron X-Ray Diffraction Study of Directional Solidification in Binary TiAl Alloys	Oehring M., Matthiessen D., Blankenburg M., Schell N., Pyczak F.	Advanced Engineering Materials	23	11			2100151	2021	3.862	10.1002/ade.m.202100151	Hybrid / Deal	MSE, MML
114	Laser welding of H-phase strengthened Ni-rich NiTi-20Zr high temperature shape memory alloy	Oliveira J.P., Shen J., Escobar J.D., Salvador C.A.F., Schell N., Zhou N., Benafan O.	Materials and Design	202				109533	2021	7.991	10.1016/j.matdes.2021.109533	Gold	MML

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115	Dissimilar laser welding of a CoCrFeMnNi high entropy alloy to 316 stainless steel	Oliveira J.P., Shen J., Zeng Z., Park J.M., Choi Y.T., Schell N., Maawad E., Zhou N., Kim H.S.	Scripta Materialia	206				114219	2021	5.611	10.1016/j.scriptamat.2021.114219	Gold	MML
116	Interfacial Reactions in the Bonding Zones of Explosively Welded Tantalum to Stainless Steel Sheets	Paul H., Chulist R., Mania I., Schell N., Lityńska-Dobrzyńska L.	Advanced Engineering Materials	23	11				2021	3.862	10.1002/adem.202001521	Closed	MML
117	Multimodal ex vivo methods reveal that Gd-rich corrosion byproducts remain at the implant site of biodegradable Mg-Gd screws	Peruzzi, N., S. Galli, H. Helmholz, N. Kardjilov, D. Krüger, H. Markötter, J. Moosmann, D. Orlov, Z. Prgomet, R. Willumeit-Römer, A. Wennerberg, M. Bech	Acta Biomaterialia						2021	8.947	10.1016/j.actbio.2021.09.047	Hybrid	MSE, MML
118	Lithium distribution and transfer in high-power 18650-type Li-ion cells at multiple length scales	Petz D., Mühlbauer M.J., Baran V., Schökel A., Kochetov V., Hofmann M., Dyadkin V., Staron P., Vaughan G., Lienert U., Müller-Buschbaum P., Senyshyn A.	Energy Storage Materials	41		546	553		2021	17.789	10.1016/j.ensm.2021.06.028	Hybrid	MML
119	Signal Retrieval from Non-Sinusoidal Intensity Modulations in X-ray and Neutron Interferometry Using Piecewise-Defined Polynomial Function	Pinzek, S., A. Gustschin, T. Neuwirth, A. Backs, M. Schulz, J. Herzen, F. Pfeiffer	Journal of Imaging	7	10				2021	0.560	10.3390/jimaging7100209	Gold	MML
120	An in situ synchrotron dilatometry and atomistic study of martensite and carbide formation during partitioning and tempering	Plesiutchnig E., Albu M., Canelo-Yubero D., Razumovskiy V.I., Stark A., Schell N., Kothleitner G., Beal C., Sommitsch C., Hofer F.	Materials	14	14			3849	2021	3.623	10.3390/materials1413849	Gold	MSE, MML, LK II
121	TEM and Synchrotron X-ray Study of the Evolution of Phases Formed During Bonding of IN718/Al/IN718 Couples by TLPB	Poliserpi M., Barriobero-Vila P., Requena G., García L.N., Tolley A., Poletti C., Vojtek T., Weiser A., Schell N., Stark A., Boeri R., Sommadossi S.	Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science	52	4	1382	1394		2021	2.556	10.1007/s11661-021-06159-y	Closed	MSE, MML
122	Integrative anatomical study of the branched annelid <i>Ramissyllis multicaudata</i> (Annelida, Syllidae)	Ponz-Segrelles G., Glasby C.J., Helm C., Beckers P., Hammel J.U., Ribeiro R.P., Aguado M.T.	Journal of Morphology	282	6	900	916		2021	1.804	10.1002/jmor.21356	Closed	MML

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123	Predicting strength of Finnish birch veneers based on three different failure criteria	Pramreiter M., Bodner S.C., Keckes J., Stadlmann A., Feist F., Baumann G., Maawad E., Müller U.	Holzforschung	75	9	847	856		2021	2.393	10.1515/hf-2020-0209	Hybrid	MML
124	Stochastic 3D microstructure modeling of anodes in lithium-ion batteries with a particular focus on local heterogeneity	Priffling, B., M. Ademmer, F. Single, O. Benevolenski, A. Hilger, M. Osenberg, I. Manke, V. Schmidt	Computational Materials Science	192				110354	2021	3.300	10.1016/j.comatsci.2021.10354	Closed	MML
125	Screening for O phase in advanced γ -TiAl alloys	Rackel M.W., Stark A., Gabrisch H., Pyczak F.	Intermetallics	131				107086	2021	3.758	10.1016/j.intermet.2021.107086	Hybrid	MSE, MML
126	High-temperature phase characterization of AlCrFeNiTi compositionally complex alloys	Reiberg M., Duan C., Li X., Werner E.	Materials Chemistry and Physics	275				125272	2021	4.094	10.1016/j.matchemphys.2021.125272	Closed	MML
127	Lattice strain during compressive loading of AlCrFeNiTi multi-principal element alloys	Reiberg M., Li X., Maawad E., Werner E.	Continuum Mechanics and Thermodynamics	33	4	1541	1554		2021	3.822	10.1007/s00161-021-00990-9	Hybrid	MML
128	Stainless steel reveals an anomaly in thermal expansion behavior of severely deformed materials	Renk O., Enzinger R., Gammer C., Scheiber D., Oberdorfer B., Tkadletz M., Stark A., Sprengel W., Pippan R., Eckert J., Romaner L., Ruban A.	Physical Review Materials	5	11			113609	2021	3.989	10.1103/PhysRevMaterials.5.113609	Closed	MSE, MML
129	Synthesis of bulk reactive Ni-Al composites using high pressure torsion	Renk O., Tkadletz M., Kostoglou N., Gunduz I.E., Fezzaa K., Sun T., Stark A., Doumanidis C.C., Eckert J., Pippan R., Mitterer C., Rebholz C.	Journal of Alloys and Compounds	857				157503	2021	5.316	10.1016/j.jallcom.2020.157503	Closed	MSE, MML
130	Structural changes and pseudo-piezoelectric behaviour of field assisted sintered calcium titanate	Riaz A., Witte K., Bodnar W., Hantusch M., Schell N., Springer A., Burkel E.	Materialia	15				100998	2021	Scopus	10.1016/j.mtla.2021.100998	Closed	MML
131	Tunable pseudo-piezoelectric effect in doped calcium titanate for bone tissue engineering	Riaz A., Witte K., Bodnar W., Seitz H., Schell N., Springer A., Burkel E.	Materials	14	6			1495	2021	3.623	10.3390/ma14061495	Gold	MML

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132	High-resolution quantitative phase-contrast X-ray imaging for biomedical samples at PETRA III	Riedel, M.; Gustschin, A.; Ushakov, L.; Noichl, W.; Taphorn, K.; Busse, M.; Beckmann, F.; Hammel, J.; Moosmann, J.; Thibault, P.; Herzen, J.	Proc. SPIE	11840				118400W	2021	Scopus	10.1117/12.2594506	Closed	MML
133	Effect of heat treatments on 316 stainless steel parts fabricated by wire and arc additive manufacturing: Microstructure and synchrotron X-ray diffraction analysis	Rodrigues, T.A., Escobar, J.D., Shen, J., Duarte, V.R., Ribamar, G.G., Avila, J.A., Maawad, E., Schell, N., Santos, T.G., and Oliveira, J.P.	Additive Manufacturing	48 Part B				102428	2021	10.998	10.1016/j.addma.2021.102428	Closed	MSE, MML
134	A Multi-Scale and Multi-Technique Approach for the Characterization of the Effects of Spatially Fractionated X-ray Radiation Therapies in a Preclinical Model	Romano, M., A. Bravin, A. Mittone, A. Eckhardt, G. E. Barbone, L. Sancey, J. Dinkel, S. Bartzsch, J. Ricke, M. Alunni-Fabroni, H. Hirner-Eppeneder, D. Karpov, C. Giannini, O. Bunk, A. Bouchet, V. Ruf, A. Giese, P. Coan	Cancers	13	19				2021	6.639	10.3390/cancers13194953	Gold	MML
135	Juvenile ecology drives adult morphology in two insect orders	Rühr P.T., Van De Kamp T., Faragó T., Hammel J.U., Wilde F., Borisova E., Edel C., Frenzel M., Baumbach T., Blanke A.	Proceedings of the Royal Society B: Biological Sciences	288	1953			20210616	2021	5.349	10.1098/rspb.2021.0616	Hybrid	MML
136	Cotton Textile/Iron Oxide Nanozyme Composites with Peroxidase-like Activity: Preparation, Characterization, and Application	Safarik I., Prochazkova J., Schroer M.A., Garamus V.M., Kopcansky P., Timko M., Rajnak M., Karpets M., Ivankov O.I., Avdeev M.V., Petrenko V.I., Bulavin L., Pospiskova K.	ACS Applied Materials and Interfaces	13	20	23627	23637		2021	9.229	10.1021/acami.1c02154	Closed	MSE, MML
137	Gaining Insight into the Deformation of Achilles Tendon Entheses in Mice	Sartori J., Köhring S., Bruns S., Moosmann J., Hammel J.U.	Advanced Engineering Materials	23	11			202100085	2021	3.862	10.1002/ade.202100085	Hybrid	MSE, MML
138	Internal Stress Evolution and Subsurface Phase Transformation in Titanium Parts Manufactured by Laser Powder Bed Fusion—An In Situ X-Ray Diffraction Study	Schmeiser F., Krohmer E., Schell N., Uhlmann E., Reimers W.	Advanced Engineering Materials	23	11				2021	3.862	10.1002/ade.202001502	Hybrid	MML
139	In situ microstructure analysis of Inconel 625 during laser powder bed fusion	Schmeiser, F.; Krohmer, E.; Wagner, C.; Schell, N.; Uhlmann, E.; Reimers, W.	Journal of materials science						2021	4.220	10.1007/s10853-021-06577-8	Hybrid	MML

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140	Using In Situ Synchrotron-Radiation-Based Microtomography to Investigate 3D Structure-Dependent Material Properties of Tension Wood	Schmelzle S., Bruns S., Beckmann F., Moosmann J., Lautner S.	Advanced Engineering Materials	23	11			2100235	2021	3.862	10.1002/adem.202100235	Closed	MSE, MML
141	The first fossils of the most basal pseudoscorpion family (Arachnida: Pseudoscorpiones: Pseudotyranochthoniidae): evidence for major biogeographical shifts in the European paleofauna	Schwarze, D; Harms, D; Hammel, JU; Kotthoff, U	PALZ						2021	1.411	10.1007/s12542-021-00565-8	Hybrid	MML
142	Superelasticity preservation in dissimilar joint of NiTi shape memory alloy to biomedical PtIr	Shamsolhodaei A., Oliveira J.P., Panton B., Ballesteros B., Schell N., Zhou Y.N.	Materialia	16				101090	2021	Scopus	10.1016/j.mta.2021.101090	Closed	MML
143	Microstructure and mechanical behavior of Mg-5Zn matrix influenced by particle deformation zone	Shi Q.-X., Wang C.-J., Deng K.-K., Nie K.-B., Wu Y., Gan W.-M., Liang W.	Journal of Materials Science and Technology	60		8	20		2021	8.067	10.1016/j.jmst.2020.04.053	Closed	MML
144	Insight on electrolyte infiltration of lithium ion battery electrodes by means of a new three-dimensional-resolved lattice Boltzmann model	Shodiev, A., E. Primo, O. Arcelus, M. Chouchane, M. Osenberg, A. Hilger, I. Manke, J. Li, A. A. Franco	Energy Storage Materials	38		80	92		2021	17.712	10.1016/j.ensm.2021.02.029	Hybrid	MML
145	In situ formation of LDH-based nanocontainers on the surface of AZ91 magnesium alloy and detailed investigation of their crystal structure.	Shulha, T., Serdechnova, Iuzviuk, M.H., Zobjkalo, I.A., Karlova, P., Scharnagl, N., Wieland, D.C.F., Lamaka, S.V., Yaremchenko, A.A., Blawert, C., Zheludkevich, M.L.	Journal of Magnesium and Alloys	in press					2021	10.088	10.1016/j.jma.2021.10.006	Gold	MSE, MML
146	Parasitic hump-backed flies (Diptera: Phoridae) from Middle Miocene ambers	Solórzano-Kraemer, M. M., C. Bourdeau, S. Rosse-Guillevic, J. U. Hammel, C. Xu and B. V. Brown	Palaeoworld						2021	1.841	10.1016/j.palwor.2021.11.002	Closed	MML
147	On the reversibility of the α_2/ω_0 phase transformation in a high Nb containing TiAl alloy during high temperature deformation	Song L., Appel F., Stark A., Lorenz U., He J., He Z., Lin J., Zhang T., Pyczak F.	Journal of Materials Science and Technology	93		96	102		2021	8.067	10.1016/j.jmst.2021.02.058	Closed	MSE, MML

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148	Exploring Structural Changes, Manufacturing, Joining, and Repair of Intermetallic gamma-TiAl-Based Alloys: Recent Progress Enabled by In Situ Synchrotron X-Ray Techniques	Spoerk-Erdely, P; Staron, P; Liu, J; Kashaev, N; Stark, A; Hauschildt, K; Maawad, E; Mayer, S; Clemens, H	Advanced Engineering Materials	23	11			2000947	2021	3.862	10.1002/adem.202000947	Hybrid	MSE, MML
149	Thermal expansion of a multiphase intermetallic Ti-Al-Nb-Mo alloy studied by high-energy X-ray diffraction	Staron P., Stark A., Schell N., Spoerk-Erdely P., Clemens H.	Materials	14	4	1	13	727	2021	3.623	10.3390/materials14040727	Gold	MSE, MML
150	Collagen Fiber Orientation Is Coupled with Specific Nano-Compositional Patterns in Dark and Bright Osteons Modulating Their Biomechanical Properties	Stockhausen K.E., Qwamizadeh M., Wölfel E.M., Hemmatian H., Fiedler I.A.K., Flenner S., Longo E., Amling M., Greving I., Ritchie R.O., Schmidt F.N., Busse B.	ACS Nano	15	1	455	467		2021	15.881	10.1021/acsnano.0c04786	Hybrid	MML
151	Microstructure and mechanical properties of M40/AZ91 composites fabricated by pressure infiltration method	Sun Z., Hu X., Wang X., Wu K., Gan W.	Composites Communications	24				100640	2021	6.617	10.1016/j.composites.2021.100640	Closed	MML
152	Na electrodeposits: a new decaying mechanism for all-solid-state Na batteries revealed by synchrotron X-ray tomography	Sun, F., L. Duchêne, M. Osenberg, S. Risse, C. Yang, L. Chen, N. Chen, Y. Huang, A. Hilger, K. Dong, T. Arlt, C. Battaglia, A. Remhof, I. Manke, R. Chen	Nano Energy	82				105762	2021	17.881	10.1016/j.nanoen.2021.105762	Closed	MML
153	First record of the spider family Hersiliidae (Araneae) from the Mesozoic of Europe (Bakony Mts, Hungary)	Szabó, M., J. U. Hammel, D. Harms, U. Kotthoff, E. Bodor, J. Novák, K. Kovács and A. Ősi	Cretaceous Research	131				105097	2021	2.176	10.1016/j.cretres.2021.105097	Hybrid	MML
154	Synchrotron X-Ray Tomography for Rechargeable Battery Research: Fundamentals, Setups and Applications	Tang, F., Z. Wu, C. Yang, M. Osenberg, A. Hilger, K. Dong, H. Markötter, I. Manke, F. Sun, L. Chen, G. Cui	Small Methods					2100557	2021	14.188	10.1002/smt.202100557	Closed	MML
155	In-situ synchrotron X-ray diffraction investigation of microstructural evolutions during low pressure carburizing	Tapar, O.B., Epp, J., Steinbacher, M., and Gibmeier, J.	Metallurgical Materials Transaction A	52		1427	1442		2021	2.556	10.1007/s11661-021-06171-2	Hybrid	MML

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156	In-situ investigation during low pressure carburizing by means of synchrotron x-ray diffraction	Tapar, O.B., Steinbacher, M., Gibmeier, J., Schell, N., and Epp, J.	HTM Journal of Heat Treatment and Materials	76	6	417	431		2021	0.180	10.1515/htm-2021-0018	Closed	MML
157	Intercritical annealing of cold-rolled ferrite-pearlite steel: Microstructure evolutions and phase transformation kinetics	Teixeira, J., Moreno, M., Allain, S.Y.P., Oberbillig, C., Geandier, G., and Bonnet, F.	Acta Materialia	212				116920	2021	8.203	10.1016/j.actamat.2021.116920	Closed	MML
158	Brilliant light for materials science: Industrial applications of synchrotron radiation-based microtomography at the tomography instruments by GEMS at PETRA III	Thiry, M., Moosmann, J.P.; Hammel, J. U. ; Wilde, F. ; Pidassa, B; Beckmann, F.	Proc. SPIE	11840				118400U	2021	Scopus	10.1117/12.2596240	Closed	MML
159	Microstructure and lattice parameters of suction-cast Ti-Nb alloys in a wide range of Nb concentrations	Thoemmes A., Bataev I.A., Lazurenko D.V., Ruktuev A.A., Ivanov I.V., Afonso C.R.M., Stark A., Jorge A.M., Jr.	Materials Science and Engineering A	818				141378	2021	5.234	10.1016/j.msea.2021.141378	Closed	MSE, MML
160	Influence of Gradient Residual Stress and Tip Shape on Stress Fields Inside Indented TiN Hard Coating	Todt J., Zalesak J., Krywka C., Keckes J.	Advanced Engineering Materials	23	11			2100130	2021	3.862	10.1002/ade.m.202100130	Hybrid	MML
161	In Situ Synchrotron Tomography of the Solidification of an Elektron 21 Mg Alloy	Tolnai D., Gavras S., Wilde F., Hammel J.U., Bruns S.	Advanced Engineering Materials	23	11			2100383	2021	3.862	10.1002/ade.m.202100383	Hybrid / Deal	MSE, MML
162	On the Microstructural and Cyclic Mechanical Properties of Pure Iron Processed by Electron Beam Melting	Torrent, C.J.J., Wackenrohr, S., Richter, J., Sobrero, C.E., Degener, S., Krooss, P., Maier, H.J., and Niendorf, T.	Advanced Engineering Materials	23	6			2100018	2021	3.862	10.1002/ade.m.202100018	Hybrid	MML
163	Competition of mechanisms contributing to the texture formation in metastable austenitic steel under compressive load	Ullrich C., Martin S., Schimpf C., Brokmeier H.-G., Schell N., Stark A., Rafaja D.	Materials Characterization	176				111132	2021	4.342	10.1016/j.matchar.2021.111132	Closed	MSE, MML
164	Effects of Polymer Block Length Asymmetry and Temperature on the Nanoscale Morphology of Thermoresponsive Double Hydrophilic Block Copolymers in Aqueous Solutions	Vagias A., Papagiannopoulos A., Kreuzer L.P., Giaouzi D., Busch S., Pispas S., Müller-Buschbaum P.	Macromolecules	54	15	7298	7313		2021	5.985	10.1021/acs.macromol.1c01005	Closed	MML

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165	In Situ High-Energy Synchrotron X-Ray Diffraction Reveals the Role of Texture on the Activation of Slip and Twinning during Deformation of Laser Powder Bed Fusion Ti-6Al-4V	Vallejos J.M., Barriobero-Vila P., Gussone J., Haubrich J., Kelm K., Stark A., Schell N., Requena G.	Advanced Engineering Materials	23	11				2021	3.862	10.1002/ade m.202001556	Closed	MSE, MML
166	In Situ Observation of γ' Phase Transformation Dynamics During Selective Laser Melting of CMSX-4	Wahlmann B., Krohmer E., Breuning C., Schell N., Staron P., Uhlmann E., Körner C.	Advanced Engineering Materials	23	11			2100112	2021	3.862	10.1002/ade m.202100112	Hybrid	MML
167	Estimation of sinking velocity using free-falling dynamically scaled models: Foraminifera as a test case	Walker M., Hammel J.U., Wilde F., Hoehfurtner T., Humphries S., Schuech R.	Journal of Experimental Biology	224	2			jeb230961	2021	3.312	10.1242/jeb.2 30961	Hybrid	MML
168	Phenomenological analysis of constrained in-plane compression of paperboard using micro-computed tomography Imaging	Wallmeier M., Barbier C., Beckmann F., Brandberg A., Holmqvist C., Kulachenko A., Moosmann J., Östlund S., Pettersson T.	Nordic Pulp and Paper Research Journal	36	3	491	502		2021	1.040	10.1515/nppri- 2020-0092	Closed	MML
169	Large rotating magnetocaloric effects in polycrystalline Ni-Mn-Ga alloys	Wei L., Zhang X., Gan W., Ding C., Liu C., Geng L., Yan Y.	Journal of Alloys and Compounds	874				159755	2021	5.316	10.1016/j.jallc om.2021.159755	Closed	MML
170	Propagation-Based Phase Contrast Computed Tomography as a Suitable Tool for the Characterization of Spatial 3D Cell Distribution in Biomaterials	Wieland D.C.F., Krueger S., Moosmann J., Distler T., Weizel A., Boccaccini A.R., Seitz H., Jonitz-Heincke A., Bader R.	Advanced Engineering Materials	23	11			2001188	2021	3.862	10.1002/ade m.202001188	Hybrid / Deal	MSE, MML
171	ASAXS measurements on ferritin and apoferritin at the bioSAXS beamline P12 (PETRA III, DESY)	Wieland D.C.F., M.A. Schroer, A.Yu. Gruzinov, C.E. Blanchet, C.M. J effries, D.I. Svergun	Journal of applied crystallography	54		830	838		2021	3.304	10.1107/S1600 576721003034	Hybrid	MSE, MML
172	Carbonate substitution significantly affects the structure and mechanics of carbonated apatites	Wingender B., Azuma M., Krywka C., Zaslansky P., Boyle J., Deymier A.	Acta Biomaterialia	122		377	386		2021	8.947	10.1016/j.actb io.2021.01.002	Closed	MML

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173	Evolutionary morphology of the antennal heart in stick and leaf insects (Phasmatodea) and web-spinners (Embioptera) (Insecta: Eukinolabia)	Wipfler B., Bradler S., Büsse S., Hammel J., Müller B.R., Pass G.	Zoomorphology	140	3	331	340		2021	1.326	10.1007/s00435-021-00526-4	Hybrid	MML
174	Evolution of microstructure and crystallographic texture of Ni-Mn-Ga melt-spun ribbons exhibiting 1.15% magnetic field-induced strain	Wójcik A., Chulist R., Czaja P., Kowalczyk M., Zackiewicz P., Schell N., Maziarz W.	Acta Materialia	219				117237	2021	8.203	10.1016/j.actamat.2021.117237	Hybrid	MML
175	Performance of a matrix type high speed steel after deep cryogenic and low tempering temperature	Worasaen K., Stark A., Tuchinda K., Suwanpinij P.	Materials Science Forum	1016 MSF		1423	1429		2021	Scopus	10.4028/www.scientific.net/MSF.1016.1423	Green	MSE, MML
176	The second chthonioid pseudoscorpion (Pseudoscorpiones: Chthoniidae) from mid-Cretaceous Burmese amber: a new genus with unique morphological features and potential Gondwanan affinities	Wriedt, A.-L., M. S. Harvey, J. U. Hammel, U. Kotthoff, D. Harms	The Journal of Arachnology	48	3	311	321		2021	1.010	10.1636/JoAS-20-017	Closed	MML
177	Role of polymorph microstructure of Ti6Al4V alloy on PEO coating formation in phosphate electrolyte	Wu, T.; Blawert, C.; Serdechnova, M.; Karlova, P.; Dovzhenko, G.; Wieland, D. C. F.; Zheludkevich, M. L.	Surface and coatings technology	428				127890	2021	4.158	10.1016/j.surfcoat.2021.127890	Hybrid	MSE, MML
178	Investigations on the tensile deformation of pure Mg and Mg-15Gd alloy by in-situ X-ray synchrotron radiation and visco-plastic self-consistent modeling	Xu Y., Huang Y., Wang Y., Gan W., Wang S., Maawad E., Schell N., Hort N.	Journal of Magnesium and Alloys						2021	10.088	10.1016/j.jma.2021.06.011	Gold	MSE, MML
179	Superior fatigue endurance exempt from high processing cleanliness of Metal-Injection-Molded β Ti-Nb-Zr for bio-tolerant applications	Xu, P., Pyczak, F., Limberg, W., Willumeit-Römer, R., Ebel, T.	Materials and Design	211					2021	7.991	10.1016/j.matdes.2021.110141	Gold	MSE, MML
180	Quantification of nano-scale interface structures to guide mechanistic modelling of WC grain coarsening inhibition in V-doped hard metals	Yildiz A.B., Babu R.P., Bonvalet-Rolland M., Busch S., Ryukhtin V., Weidow J., Norgren S., Hedström P.	Materials and Design	207				109825	2021	7.991	10.1016/j.matdes.2021.109825	Gold	MML

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181	The Effect of Chemistry and 3D Microstructural Architecture on Corrosion of Biodegradable Mg–Ca–Zn Alloys	Zander D., Zaslansky P., Zumdick N.A., Felten M., Schnatterer C., Chaineux V.F., Hammel J.U., Storm M., Wilde F., Fleck C.	Advanced Engineering Materials	23	11			2100157	2021	3.862	10.1002/ade.m.202100157	Hybrid	MML
182	Mutually Beneficial Combination of Molecular Dynamics Computer Simulations and Scattering Experiments	Zec, N; Mangiapia, G; Hendry, AC; Barker, R; Koutsioubas, A; Frielinghaus, H; Campana, M; Ortega-Roldan, JL; Busch, S; Moulin, JF	Membranes	11	7			507	2021	4.106	10.3390/membranes11070507	Gold	MML
183	Computational modelling of magnesium degradation in simulated body fluid under physiological conditions	Zeller-Plumhoff B., AlBaraghteh T., Höche D., Willumeit-Römer R.	Journal of Magnesium and Alloys	in press					2021	10.088	10.1016/j.jjma.2021.11.014	Gold	MSE, MML
184	Evaluating the morphology of the degradation layer of pure magnesium via 3D imaging at resolutions below 40 nm	Zeller-Plumhoff B., Laipple D., Slominska H., Iskhakova K., Longo E., Hermann A., Flenner S., Greving I., Storm M., Willumeit-Römer R.	Bioactive Materials	6	12	4368	4376		2021	14.593	10.1016/j.bioactmat.2021.04.009	Gold	MSE, MML
185	Utilizing Synchrotron Radiation for the Characterization of Biodegradable Magnesium Alloys—From Alloy Development to the Application as Implant Material	Zeller-Plumhoff B., Tolnai D., Wolff M., Greving I., Hort N., Willumeit-Römer R.	Advanced Engineering Materials	23	11			2100197	2021	3.862	10.1002/ade.m.202100197	Hybrid / Deal	MSE, MML
186	Mitochondrial Voltage-Dependent Anion Channel 1-Hexokinase-II Complex-Targeted Strategy for Melanoma Inhibition Using Designed Multiblock Peptide Amphiphiles	Zhang F., Angelova A., Garamus V.M., Angelov B., Tu S., Kong L., Zhang X., Li N., Zou A.	ACS Applied Materials and Interfaces	13	30	35281	35293		2021	9.229	10.1021/acami.1c04385	Closed	MSE, MML
187	Evolution of microscopic strains, stresses, and dislocation density during in-situ tensile loading of additively manufactured AlSi10Mg alloy	Zhang X.X., Lutz A., Andrä H., Lahres M., Gan W.M., Maawad E., Emmelmann C.	International Journal of Plasticity	139				102946	2021	7.081	10.1016/j.ijplas.2021.102946	Closed	MML
188	An additively manufactured and direct-aged AlSi3.5Mg2.5 alloy with superior strength and ductility: micromechanical mechanisms	Zhang X.X., Lutz A., Andrä H., Lahres M., Sittig D., Maawad E., Gan W.M., Knoop D.	International Journal of Plasticity	146				103083	2021	7.081	10.1016/j.ijplas.2021.103083	Closed	MML

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1	Scaling the U-net: Segmentation of biodegradable bone implants in high-resolution synchrotron microtomogram	Baltruschat, H. Ćwieka, D. Krüger, B. Zeller-Plumhoff, F. Schlünzen, R. Willumeit-Römer, J. Moosmann, P. Heuser	Scientific Reports	11				24237	2021	4.389	10.1038/s41598-021-03542-y	Gold	MSE, MT

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1	Altimetry for the future: Building on 25 years of progress	Abadía S., Abden Kolanchi A., Adair M., Adusumilli S., Aichi Bhowmick S., Alou-Font E., Amarouche L., Andersen O.B., Antich H., Aouf L., Arbic B., Armitage T., Arnault S., Artana C., Aulicino G., Ayoub N., Badulin S., Baker S., Banks C., Bao L., Barbetta S., Barceló-Llull B., Barlier F., Basu S., Bauer-Gottwein P., Becker M., Beckley B., Bellefond N., Belonenko T., Benkiran M., Benkouider T., Bennartz R., Benveniste J., Bercher N., Berge-Nguyen M., Bettencourt J., Blarel F., Blazquez A., Blumstein D., Bonnefond P., Borde F., Bouffard J., Boy F., Boy J.-P., Brachet C., Brasseur P., Braun A., Brocca L., Brockley D., Brodeau L., Brown S., Bruinsma S., Bulczak A., Buzzard S., Cahill M., Calmant S., Calzas M., Camici S., Cancet M., Capdeville H., Carabajal C.C., Carrere L., Cazenave A., Chassignet E.P., Chauhan P., Cherchali S., Chereskin T., Cheymol C., Ciani D., Cipollini P., Cirillo F., Cosme E., Coss S., Cotroneo Y., Cotton D., Couhert A., Coutin-Faye S., Crétaux J.-F., Cyr F., d'Ovidio F., Darrozes J., David C., Dayoub N., De Staerke D., Deng X., Desai S., Desjonqueres J.-D., Dettmering D., Di Bella A., Díaz-Barroso L., Diharboure G., Diana H.B., Dinardo S., Dobslaw H., Dodet G.	Advances in Space Research	68	2	319	363		2021	2.152	10.1016/j.asr.2021.01.022	Hybrid	Changing Earth
2	Terrestrial Nutrients and Dissolved Organic Matter Input to the Coral Reef Ecosystem via Submarine Springs	Adyasari, D; Waska, H; Daehnke, K; Oehler, T; Pracoyo, A; Putra, DPE; Moosdorf, N	ACS ES&T WATER	1	8	1887	1900		2021	Scopus	10.1021/acs.estwater.1c00134	Closed	Changing Earth
3	Accelerating deployment of offshore wind energy alter wind climate and reduce future power generation potentials	Akhtar N., Geyer B., Rockel B., Sommer P.S., Schrum C.	Scientific Reports	11	1			11826	2021	4.379	10.1038/s41598-021-91283-3	Gold	Changing Earth
4	Impact of benthos on morphodynamics from a modeling perspective	Arlinghaus P., Zhang W., Wrede A., Schrum C., Neumann A.	Earth-Science Reviews	221				103803	2021	12.413	10.1016/j.earscirev.2021.103803	Closed	Changing Earth
5	Effect of High-Energy Milling on the Dissolution of Anti-HIV Drug Efavirenz in Different Solvents	Ataollahi N., Broseghini M., Ferreira F.F., Susana A., Pizzato M., Scardi P.	ACS Omega	6	19	12647	12659		2021	3.512	10.1021/acs.omega.1c00712	Gold	Changing Earth
6	Parameterizing the vertical downward dispersion of ship exhaust gas in the near field	Badeke R., Matthias V., Grawe D.	Atmospheric Chemistry and Physics	21	8	5935	5951		2021	6.133	10.5194/acp-21-5935-2021	Gold	Changing Earth

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7	The first multi-model ensemble of regional climate simulations at kilometer-scale resolution, part I: evaluation of precipitation	Ban N., Caillaud C., Coppola E., Pichelli E., Sobolowski S., Adinolfi M., Ahrens B., Alias A., Anders I., Bastin S., Belušić D., Berthou S., Brisson E., Cardoso R.M., Chan S.C., Christensen O.B., Fernández J., Fita L., Frisius T., Gašparac G., Giorgi F., Goergen K., Haugen J.E., Hodnebrog Ø., Kartsios S., Katragkou E., Kendon E.J., Keuler K., Lavin-Gullon A., Lenderink G., Leutwyler D., Lorenz T., Maraun D., Mercogliano P., Milovac J., Panitz H.-J., Raffa M., Remedio A.R., Schär C., Soares P.M.M., Srnec L., Steensen B.M., Stocchi P., Tölle M.H., Truhetz H., Vergara-Temprado J., de Vries H., Warrach-Sagi K., Wulfmeyer V., Zander M.J.	Climate Dynamics	57	1	275	302		2021	4.375	10.1007/s00382-021-05708-w	Hybrid	Changing Earth
8	The impact of offshore wind farms on sea state demonstrated by airborne lidar measurements	Bärfuss K., Schulz-Stellenfleth J., Lampert A.	Journal of Marine Science and Engineering	9	6			644	2021	2.458	10.3390/jmse9060644	Gold	Changing Earth
9	Saturation of the Internal Tide over the Inner Continental Shelf. Part II: Parameterization	Becherer, J.; Moum, J.; Calantoni, J.; Colosi, J.; Barth, J.; Lerczak, J.; McSweeney, J.; MacKinnon, J.; Waterhouse, A.	Journal of Physical Oceanography	51	8	2565	2582		2021	3.373	10.1175/JPO-D-21-0047.1	Green	Changing Earth
10	Saturation of the Internal Tide over the Inner Continental Shelf. Part I: Observations	Becherer, J.; Moum, J.N.; Calantoni, J.; Colosi, J.A.; Barth, J.A.; Lerczak, J.A.; McSweeney, J.M.; MacKinnon, J.A.; Waterhouse, A.F.	Journal of Physical Oceanography	51	8	2553	2563		2021	3.373	10.1175/JPO-D-20-0264.1	Closed	Changing Earth
11	Global assessment of innovative solutions to tackle marine litter	Bellou N., Gambardella C., Karantzas K., Monteiro J.G., Canning-Clode J., Kemna S., Arrieta-Giron C.A., Lemmen C.	Nature Sustainability	4	6	516	524		2021	19.346	10.1038/s41893-021-00726-2	Hybrid / Deal	Changing Earth
12	Vertical Mixing in Stratified Fjords Near Tidewater Outlet Glaciers Along Northwest Greenland	Bendtsen J., Rysgaard S., Carlson D.F., Meire L., Sejr M.K.	Journal of Geophysical Research: Oceans	126	8			e2020JC016898	2021	3.405	10.1029/2020JC016898	Hybrid	Changing Earth
13	Towards a unified framework for extreme sea waves from spectral models: rationale and applications	Benetazzo A., Barbariol F., Pezzutto P., Staneva J., Behrens A., Davison S., Bergamasco F., Sclavo M., Cavaleri L.	Ocean Engineering	219				108263	2021	3.795	10.1016/j.oceaneng.2020.108263	Closed	Changing Earth
14	Current and sea level control the demise of shallow carbonate production on a tropical bank (Saya de Malha Bank, Indian Ocean)	Betzler, C.; Lindhorst, S.; Lüdman, T.; Reijmer, J.J.; Braga, J.-C.; Bialik, O.M.; Reolid, J.; Eisermann, J.O.; Emeis, K.; Rixen, T.; Bissessur, D.	Geology	12	1606	1431	1435		2021	5,399	10.1130/G49090.1	Hybrid	Changing Earth
15	Multi-compartment Chemistry Transport Models	Bieser J., Ramacher, Martin Otto Paul	Air Pollution Modeling and its Application	27		119	123		2021	Scopus	10.1007/978-3-662-63760-9_18	Closed	Changing Earth

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16	Exploring Ocean Biogeochemistry Using a Lab-on-Chip Phosphate Analyser on an Underwater Glider	Birchill A.J., Beaton A.D., Hull T., Kaiser J., Mowlem M., Pascal R., Schaap A., Voynova Y.G., Williams C., Palmer M.	Frontiers in Marine Science	8				698102	2021	4.912	10.3389/fmars.2021.698102	Gold	Changing Earth
17	Lagrangian Measurements of Orbital Velocities in the Surf Zone	Bjørnstad, M.; Buckley, M.; Kalisch, H.; Streifer, M.; Horstmann, J.; Frøysa, H.G.; Ige, O.E.; Cysewski, M.; Carrasco-Alvarez, R.	Geophysical Research Letters	48	21			e2021GL095722	2021	4.720	10.1029/2021GL095722	Hybrid	Changing Earth
18	No evidence for reduced growth in resident fish species in the era of de-eutrophication in a coastal area in NW Europe	Bolle L.J., Hoek R., Pennock I., Poiesz S.S.H., van Beusekom J.E.E., van der Veer H.W., Witte J.I., Tulp I.	Marine Environmental Research	169				105364	2021	3.130	10.1016/j.marenvres.2021.105364	Hybrid	Changing Earth
19	Ocean Mesoscale Variability: A Case Study on the Mediterranean Sea From a Re-Analysis Perspective	Bonaduce, A., Cipollone, A., Johannessen, J.A., Staneva, J., Raj, R.P., & Aydogdu, A.	Front. Earth Sci.	9				724879	2021	3.498	10.3389/feart.2021.724879	Gold	Changing Earth
20	Skillful decadal prediction of unforced southern European summer temperature variations	Borchert, LF; Koul, V; Menary, MB; Befort, DJ; Swingedouw, D; Sgubin, G; Mignot, J	Environmental Research Letters	16	10			104017	2021	6.793	10.1088/1748-9326/ac20f5	Gold	Changing Earth
21	Technical note: Considerations on using uncertain proxies in the analogue method for spatiotemporal reconstructions of millennial-scale climate	Bothe O., Zorita E.	Climate of the Past	17	2	721	751	36	2021	4.295	10.5194/cp-17-721-2021	Gold	Changing Earth
22	What determines the sign of the evapotranspiration response to afforestation in European summer?	Breil M., Davin E.L., Reichid D.	Biogeosciences	18	4	1499	1510		2021	4.295	10.5194/bg-18-1499-2021	Gold	Changing Earth
23	Past abrupt changes, tipping points and cascading impacts in the Earth system	Brovkin V., Brook E., Williams J.W., Bathiany S., Lenton T.M., Barton M., DeConto R.M., Donges J.F., Ganopolski A., McManus J., Praetorius S., de Vernal A., Abe-Ouchi A., Cheng H., Claussen M., Crucifix M., Gallopin G., Iglesias V., Kaufman D.S., Kleinen T., Lambert F., van der Leeuw S., Liddy H., Loutre M.-F., McGee D., Rehfeld K., Rhodes R., Seddon A.W.R., Trauth M.H., Vanderveken L., Yu Z.	Nature Geoscience	14	8	550	558		2021	16.908	10.1038/s41561-021-00790-5	Closed	Changing Earth
24	Application of copernicus data for climate-relevant urban planning using the example of water, heat, and vegetation	Bühler M.M., Sebald C., Reichid D., Baier E., Michalski A., Rothstein B., Nübel K., Metzner M., Schwiager V., Harrs J.-A., Jacob D., Köhler L., In Het Panhuis G., Rodríguez Tejeda R.C., Herrmann M., Buziek G.	Remote Sensing	13	18			3634	2021	4.848	10.3390/rs13183634	Gold	Changing Earth

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25	Recent European drought extremes beyond Common Era background variability	Büntgen U., Urban O., Krusic P.J., Rybníček M., Kolář T., Kyncl T., Ač A., Koňasová E., Čáslavský J., Esper J., Wagner S., Saurer M., Tegel W., Dobrovolný P., Cherubini P., Reinig F., Trnka M.	Nature Geoscience	14	4	190	196		2021	16.908	10.1038/s41561-021-00698-0	Closed	Changing Earth
26	Signals of Holocene climate transition amplified by anthropogenic land-use changes in the westerly-Indian monsoon realm	Burdanowitz N., Rixen T., Gaye B., Emeis K.-C.	Climate of the Past	17	4	1735	1749		2021	4.295	10.5194/cp-17-1735-2021	Gold	Changing Earth
27	Detailed Patterns of Methane Distribution in the German Bight	Bussmann, I., Brix, H., Flöser, G., Ködel, U., Fischer, P.	Frontiers in Marine Science	8				728308	2021	4.912	10.3389/fmars.2021.728308	Gold	Changing Earth
28	Filaments, fronts and eddies in the cabo frio coastal upwelling system, Brazil	Calil P.H.R., Suzuki N., Baschek B., da Silveira I.C.A.	Fluids	6	2			54	2021	Scopus	10.3390/fluids6020054	Gold	Changing Earth
29	Sensitive dependence of trajectories on tracer seeding positions - Coherent structures in German Bight backward drift simulations	Callies U.	Ocean Science	17	2	527	541		2021	3.416	10.5194/os-17-527-2021	Gold	Changing Earth
30	On Using Lagrangian Drift Simulations to Aid Interpretation of in situ Monitoring Data	Callies U., Kreuz M., Petersen W., Voynova Y.G.	Frontiers in Marine Science	8				666653	2021	4.912	10.3389/fmars.2021.666653	Gold	Changing Earth
31	The 2017 Mission Arctic Citizen Science Sailing Expedition Conductivity, Temperature, and Depth Profiles in Western Greenland and Baffin Bay	Carlson D.F., Carr G., Crosbie J.L., Lundgren P., Peissel N., Pett P., Turner W., Rysgaard S.	Frontiers in Marine Science	8				665582	2021	4.912	10.3389/fmars.2021.665582	Gold	Changing Earth
32	The 'last mile' for climate data supporting local adaptation	Celliers L., Costa M.M., Williams D.S., Rosendo S.	Global Sustainability					e14	2021	Scopus	10.1017/sus.2021.12	Gold	Changing Earth
33	Negotiation of knowledge for coastal management? Reflections from a transdisciplinary experiment in South Africa	Celliers L., Scott D., Ngcoya M., Taljaard S.	Humanities and Social Sciences Communications	8	1			207	2021	Scopus	10.1057/s41599-021-00887-7	Gold	Changing Earth
34	Optical Properties and Biochemical Indices of Marine Particles in the Open Mediterranean Sea: The R/V Maria S. Merian Cruise, March 2018	Chaikalis S., Parinos C., Möbius J., Gogou A., Velaoras D., Hainbucher D., Sofianos S., Tanhua T., Cardin V., Proestakis E., Amiridis V., Androni A., Karageorgis A.	Frontiers in Earth Science	9				614703	2021	3.498	10.3389/feart.2021.614703	Gold	Changing Earth
35	Impacts of the Assimilation of Satellite Sea Surface Temperature Data on Volume and Heat Budget Estimates for the North Sea	Chen W., Schulz-Stellenfleth J., Grayek S., Staneva J.	Journal of Geophysical Research: Oceans	126	5			e2020JC017059	2021	3.405	10.1029/2020JC017059	Hybrid	Changing Earth

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36	Depositional architecture and evolution of basin-floor fan systems since the Late Miocene in the Northwest Sub-Basin, South China Sea	Chen, H; Stow, DAV; Xie, XN; Ren, JY; Mao, KN; Gao, Y; Chen, BC; Zhang, WY; Vandorpe, T; Van Rooij, D	MARINE AND PETROLEUM GEOLOGY	126				104803	2021	4.348	10.1016/j.marpetgeo.2020.104803	Closed	Changing Earth
37	Coastal Ocean Forecasting Science supported by GODAE OceanView Coastal Oceans and Shelf Seas Task Team (COSS-TT)–Part II	Cirano M., Charria G., De Mey-Frémaux P., Kourafalou V.H., Stanev E.	Ocean Dynamics	71	06. Jul	779	783		2021	2.195	10.1007/s10236-021-01464-x	Closed	Changing Earth
38	Climate hazard indices projections based on CORDEX-CORE, CMIP5 and CMIP6 ensemble	Coppola E., Raffaele F., Giorgi F., Giuliani G., Xuejie G., Ciarlo J.M., Sines T.R., Torres-Alavez J.A., Das S., di Sante F., Pichelli E., Glazer R., Müller S.K., Abba Omar S., Ashfaq M., Bukovsky M., Im E.-S., Jacob D., Teichmann C., Remedio A., Remke T., Kriegsmann A., Bülow K., Weber T., Buntemeyer L., Sieck K., Rechid D.	Climate Dynamics	57	05. Jun	1293	1383		2021	4.375	10.1007/s00382-021-05640-z	Closed	Changing Earth
39	Guiding cities under increased droughts: The limits to sustainable urban futures	Cremades, R; Sanchez-Plaza, A; Hewitt, RJ; Mitter, H; Baggio, JA; Olazabal, M; Broekman, A; Kropf, B; Tudose, NC	ECOLOGICAL ECONOMICS	189				107140	2021	5.389	10.1016/j.ecolecon.2021.107140	Hybrid	Changing Earth
40	Estimates of current and future climate change in Belarus based on meteorological station data and the EURO-CORDEX-11 dataset	Danilovich, I; Geyer, B.	Meteorology, Hydrology and Water Management	9	01. Feb				2021	Master Journal List, aber kein Impact	10.26491/mhwm/139386	Closed	Changing Earth
41	Impact of air-sea coupling on the climate change signal over the Iberian Peninsula	de la Vara, A; Cabos, W; Sein, DV; Teichmann, C; Jacob, D	Climate Dynamics						2021	4.375	10.1007/s00382-021-05812-x	Hybrid	Changing Earth
42	Diverging responses of high-latitude CO ₂ and CH ₄ emissions in idealized climate change scenarios	De Vrese P., Stacke T., Kleinen T., Brovkin V.	Cryosphere	15	2	1097	1130		2021	5.771	10.5194/tc-2021-15-1097-2021	Gold	Changing Earth
43	Snowfall-albedo feedbacks could have led to deglaciation of snowball Earth starting from mid-latitudes	de Vrese, P; Stacke, T; Rugenstein, JC; Goodman, J; Brovkin, V	COMMUNICATIONS EARTH & ENVIRONMENT	2	1			91	2021	-	10.1038/s43247-021-00160-4	Gold	Changing Earth
44	Using Sr-Nd-Pb isotope systems to trace sources of sediment and trace metals to the Weser River system (Germany) and assessment of input to the North Sea	Deng F., Hellmann S., Zimmermann T., Pröfrock D.	Science of the Total Environment	791				148127	2021	7.963	10.1016/j.scitotenv.2021.148127	Closed	Changing Earth

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45	Climate and environmental context of the Mongol invasion of Syria and defeat at 'Ayn Jalut (1258–1260 CE)	Di Cosmo N, Wagner S., Büntgen U.	Erdkunde	75	2	87	104		2021	2.184	10.3112/ERDKUNDE.2021.02.02	Gold	Changing Earth
46	"I show you my coast..." – A relational study of coastscapes in the North Frisian Wadden Sea	Döring, M., Ratter, B.	Maritime Studies	20		317	327		2021	Scopus	10.1007/s40152-021-00239-w	Hybrid	Changing Earth
47	Future changes in wave conditions at the German Baltic Sea coast based on a hybrid approach using an ensemble of regional climate change projections	Dreier N, Nehlsen E., Fröhle P., Rechid D., Bouwer L.M., Pfeifer S.	Water (Switzerland)	13	2			167	2021	3.103	10.3390/w13020167	Gold	Changing Earth
48	Seasonal marine carbon system processes in an Arctic coastal landfast sea ice environment observed with an innovative underwater sensor platform	Duke P.J., Else B.G.T., Jones S.F., Marriot S., Ahmed M.M.M., Nandan V., Butterworth B., Gonski S.F., Dewey R., Sastri A., Miller L.A., Simpson K.G., Thomas H.	Elementa	9	1			103	2021	6.053	10.1525/elementa.2021.00103	Gold	Changing Earth
49	A leverage points analysis of a qualitative system dynamics model for climate change adaptation in agriculture	Egerer S., Cotera R.V., Celliers L., Costa M.M.	Agricultural Systems	189				103052	2021	5.370	10.1016/j.agry.2021.103052	Hybrid	Changing Earth
50	Enhanced monitoring of life in the sea is a critical component of conservation management and sustainable economic growth	Estes M., Jr., Anderson C., Appeltans W., Bax N., Bednaršek N., Canonico G., Djavidnia S., Escobar E., Fietzek P., Gregoire M., Hazen E., Kavanaugh M., Lejzerowicz F., Lombard F., Miloslavich P., Möller K.O., Monk J., Montes E., Moustahfid H., Muelbert M.M.C., Muller-Karger F., Peavey Reeves L.E., Satterthwaite E.V., Schmidt J.O., Sequeira A.M.M., Turner W., Weatherdon L.V.	Marine Policy	132				104699	2021	4.173	10.1016/j.marpol.2021.104699	Hybrid	Changing Earth
51	The 11th International Workshop on Modeling the Ocean (IWMO 2019) in Wuxi, China, on June 17–20, 2019	Ezer, T; Xu, FH; Liu, ZY; Stanev, E; Wang, SL; Wei, J	Ocean Dynamics	71	4	471	474		2021	2.195	10.1007/s10236-021-01448-x	Closed	Changing Earth
52	Advances in NE-Atlantic coastal sea level change monitoring by Delay Doppler altimetry	Fenoglio L., Dinardo S., Uebbing B., Buchhaupt C., Gärtner M., Staneva J., Becker M., Klos A., Kusche J.	Advances in Space Research	68	2	571	592		2021	2.152	10.1016/j.asr.2020.10.041	Closed	Changing Earth
53	Impact of rapid urbanization on stream water quality in the Brazilian Amazon	Ferreira S.J.F., Pinel S., Rios-Villamizar E.A., Miranda S.Á.F., Pascoaloto D., Vital A.R.T., Monteiro M.T.F., da Silva M.S.R., da Cunha T.R.B., dos Santos A.S., Bender S., da Cunha H.B.	Environmental Earth Sciences	80	8			316	2021	2.784	10.1007/s12665-021-09621-7	Closed	Changing Earth

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54	North atlantic winter storm activity in modern reanalyses and pressure-based observations	Feser F., Krueger O., Woth K., Van Garderen L.	Journal of Climate	34	7	2411	2428		2021	5.148	10.1175/JCLI-D-20-0529.1	Hybrid	Changing Earth
55	Effects of Measuring Devices and Sampling Strategies on the Interpretation of Monitoring Data for Long-Term Trend Analysis	Fischer, P.; Dietrich, P.; Achterberg, E.; Anselm, N.; Brix, H.; Bussmann, I.; Eickelmann, L.; Flöser, G.; Friedrich, M.; Rust, H.; Schütze, C.; Koedel, U.	Frontiers in Marine Science	8	2685			770977	2021	4.912	10.3389/fmars.2021.770977	Gold	Changing Earth
56	Potential impact of 1.5, 2 and 3 °C global warming levels on heat and discomfort indices changes over Central Africa	Fotso-Nguemo T.C., Vondou D.A., Diallo I., Diedhiou A., Weber T., Tanessong R.S., Nghonda J.P., Yepdo Z.D.	Science of the Total Environment	804				150099	2021	7.963	10.1016/j.scitotenv.2021.150099	Closed	Changing Earth
57	Recent benthic foraminiferal distribution in the Elbe Estuary (North Sea, Germany): A response to environmental stressors	Francescangeli F., Milker Y., Bunzel D., Thomas H., Norbistrath M., Schönfeld J., Schmiedl G.	Estuarine, Coastal and Shelf Science	251				107198	2021	2.929	10.1016/j.estcs.2021.107198	Closed	Changing Earth
58	Effects of Nutrient Management Scenarios on Marine Eutrophication Indicators: A Pan-European, Multi-Model Assessment in Support of the Marine Strategy Framework Directive	Friedland R., Macias D., Cossarini G., Daewel U., Estournel C., Garcia-Gorriz E., Grizzetti B., Grégoire M., Gustafson B., Kalaroni S., Kerimoglu O., Lazzari P., Lenhart H., Lessin G., Maljutenko I., Miladinova S., Müller-Karulis B., Neumann T., Parn O., Pätsch J., Piroddi C., Raudsepp U., Schrum C., Stegert C., Stips A., Tsiaras K., Ulses C., Vandenbulcke L.	Frontiers in Marine Science	8				596126	2021	4.912	10.3389/fmars.2021.596126	Gold	Changing Earth
59	Pressure fields in the airflow over wind-generated surface waves	Funke, C.; Buckley, M.; Schultze, L.; Veron, F.; Timmermans, M.; Carpenter, J.	Journal of Physical Oceanography	51	11	3448	3460		2021	3.373	10.1175/JPO-D-20-0311.1	Closed	Changing Earth
60	Considering socio-political framings when analyzing coastal climate change effects can prevent maldevelopment on small islands	Gabriel David, C., Arne Hennig, Beate Ratter, Volker Roeber, Zahid, Torsten Schlurmann	Nature Communications	12				5882	2021	14.919	10.1038/s41467-021-26082-5	Gold	Changing Earth
61	Technical note: AQMEII4 Activity I: Evaluation of wet and dry deposition schemes as an integral part of regional-scale air quality models	Galmarini, S., Makar, P., Clifton, O.E., ...Silva, S., Wolke, R. Bieser, J., ...	Atmospheric Chemistry and Physics	21	20	15663	15697		2021	6.133	10.5194/acp-21-15663-2021	Gold	Changing Earth
62	Investigating the Uptake and Fate of Poly-And Perfluoroalkylated Substances (PFAS) in Sea Ice Using an Experimental Sea Ice Chamber	Garnett J., Halsall C., Thomas M., Crabeck O., France J., Joerss H., Ebinghaus R., Kaiser J., Leeson A., Wynn P.M.	Environmental Science and Technology	55	14	9601	9608		2021	9.028	10.1021/acs.est.1c01645	Hybrid	Changing Earth
63	High Concentrations of Perfluoroalkyl Acids in Arctic Seawater Driven by Early Thawing Sea Ice	Garnett J., Halsall C., Vader A., Joerss H., Ebinghaus R., Leeson A., Wynn P.M.	Environmental Science and Technology	55	16	11049	11059		2021	9.028	10.1021/acs.est.1c01676	Hybrid	Changing Earth

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64	Limits of reproducibility and hydrodynamic noise in atmospheric regional modelling	Geyer, B; Ludwig, T; von Storch, H	COMMUNICATIONS EARTH & ENVIRONMENT	2	1			17	2021	-	10.1038/s43247-020-00085-4	Gold	Changing Earth
65	In search of social sustainability in marine spatial planning: A review of scientific literature published 2005–2020	Gilek M., Armoskaite A., Gee K., Saunders F., Tafon R., Zaucha J.	Ocean and Coastal Management	208				105618	2021	3.284	10.1016/j.jocecoaman.2021.105618	Hybrid	Changing Earth
66	Combining social network analysis and agent-based model for enabling nature-based solution implementation: The case of Medina del Campo (Spain)	Giordano R., Manez-Costa M., Pagano A., Mayor Rodriguez B., Zorrilla-Miras P., Gomez E., Lopez-Gunn E.	Science of the Total Environment	801				149734	2021	7.963	10.1016/j.scitotenv.2021.149734	Hybrid	Changing Earth
67	Editorial for the CORDEX-CORE Experiment I Special Issue	Giorgi, F., Coppola, F., Teichmann, C., Jacob, D.	Climate Dynamics	57		1265	1268		2021	4.375	10.1007/s00382-021-05902-w	Closed	Changing Earth
68	Assessing the long-term effectiveness of Nature-Based Solutions under different climate change scenarios	Gómez Martín, E., Máñez Costa, M., Egerer, S., Schneider, Uwe A.	Science of The Total Environment	794				148515	2021	7.963	10.1016/j.scitotenv.2021.148515	Hybrid	Changing Earth
69	Increasing the depth of a Land Surface Model. Part I: Impacts on the subsurface thermal regime and energy storage.	Gonzalez-Rouco, J.F., N.J. Steinert, E.J. García-Bustamante, S. Hagemann, P. de Vrese, J.H. Jungclaus, S.J. Lorenz, C. Melo-Aguilar, F. García-Pereira and J. Navarro	Journal of Hydrometeorology	12		3211	3230		2021	4.349	10.1175/JHM-D-21-0024.1	Closed	Changing Earth
70	Coupled regional Earth system modeling in the Baltic Sea region	Gröger, M; Dieterich, C; Haapala, J; Ho-Hagemann, HM; Hagemann, S; Jakacki, J; May, W; Meier, HEM; Miller, PA; Rutgersson, A; Wu, LC	Earth System Dynamics	12	3	939	973		2021	5.540	10.5194/esd-12-939-2021	Gold	Changing Earth
71	EU Transport Policy: Much potential, implementation open [EU-Verkehrspolitik: Viel Potenzial, Umsetzung offen]	Groth M.	Wirtschaftsdienst	101	8	581			2021	Scopus	10.1007/s10273-021-2970-x	Gold	Changing Earth
72	Two-term Reynolds-McCormick phase function parameterization better describes light scattering by microalgae and mineral hydrosols	Harmel T., Agagliate J., Hieronymi M., Gernez P.	Optics Letters	46	8	1860	1863		2021	3.776	10.1364/OL.420344	Closed	Changing Earth
73	Sediment trap-derived particulate matter fluxes in the oligotrophic subtropical gyre of the South Indian Ocean	Harms N.C., Lahajnar N., Gaye B., Rixen T., Schwarz-Schampera U., Emeis K.-C.	Deep-Sea Research Part II: Topical Studies in Oceanography	183				104924	2021	2.732	10.1016/j.dsr.2020.104924	Hybrid	Changing Earth

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74	Ecosystem approach to harvesting in the Arctic: Walking the tightrope between exploitation and conservation in the Barents Sea	Heath M.R., Benkort D., Brierley A.S., Daewel U., Laverick J.H., Proud R., Speirs D.C.	Ambio						2021	5.129	10.1007/s13280-021-01616-9	Hybrid	Changing Earth
75	Evaluation of alaro-0 and remo regional climate models over iran focusing on building material degradation criteria	Hedayatnia H., Top S., Caluwaerts S., Kotova L., Steeman M., Van Den Bossche N.	Buildings	11	8			376	2021	2.648	10.3390/buildings11080376	Gold	Changing Earth
76	Recommendations for Future Research Priorities for Climate Modeling and Climate Services	Hewitt, C.D., Guglielmo, F., Joussaume, S., Bessembinder, J., Christel, I., Doblas-reyes, F. J., Djurdjevic, V., Garrett, N., Kjellstrom, E., Krzic, A., Máñez Costa, M., St. Clair, A.L.	Bulletin of the American Meteorological Society	102	3	E578	E588		2021	8.766	10.1175/BAMS-D-20-0103.1	Green	Changing Earth
77	Comparison and uncertainty evaluation of two centrifugal separators for microplastic sampling	Hildebrandt L., Zimmermann T., Primpke S., Fischer D., Gerdt G., Pröfrock D.	Journal of Hazardous Materials	414				125482	2021	10.588	10.1016/j.jhazmat.2021.125482	Hybrid	Changing Earth
78	A Coherent on Receive X-Band Marine Radar for Ocean Observations	Horstmann, J.; Bödewadt, J.; Carrasco, R.; Cysewski, M.; Seemann, J.; Streßer, M.	Sensors	21	23			7828	2021	3.576	10.3390/s21237828	Gold	Changing Earth
79	Towards neural Earth system modelling by integrating artificial intelligence in Earth system science	Irrgang C., Boers N., Sonnewald M., Barnes E.A., Kadow C., Staneva J., Saynisch-Wagner J.	Nature Machine Intelligence	3	8	667	674		2021	15.508	10.1038/s42256-021-00374-3	Closed	Changing Earth
80	Understanding the Impact of Bathymetric Changes in the German Bight on Coastal Hydrodynamics: One Step Toward Realistic Morphodynamic Modeling	Jacob B., Stanev E.V.	Frontiers in Marine Science	8				640214	2021	4.912	10.3389/fmars.2021.640214	Gold	Changing Earth
81	Naturwissenschaftlicher Hintergrund der Erderwärmung: Wo stehen wir zurzeit?	Jacob D., Görl K., Groth M., Haustein K., Rechid D., Sieck K., Wolff M.	Wirtschaftsdienst	101	5	330	334		2021	Scopus	10.1007/s10273-021-2911-8	Gold	Changing Earth
82	Correcting a major error in assessing organic carbon pollution in natural waters	Jiao N., Liu J., Edwards B., Lv Z., Cai R., Liu Y., Xiao X., Wang J., Jiao F., Wang R., Huang X., Guo B., Sun J., Zhang R., Zhang Y., Tang K., Zheng Q., Azam F., Batt J., Cai W.-J., He C., Herndl G.J., Hill P., Hutchins D., LaRoche J., Lewis M., MacIntyre H., Polimene L., Robinson C., Shi Q., Suttle C.A., Thomas H., Wallace D., Legendre L.	Science Advances	7	16			eabc7318	2021	14.136	10.1126/sciadv.abc7318	Gold	Changing Earth

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83	Amyloid fibril-based membranes for PFAS removal from water	Jin, TH; Peydayesh, M; Joerss, H; Zhou, JT; Bolisetty, S; Mezzenga, R	ENVIRONMENTAL SCIENCE-WATER RESEARCH & TECHNOLOGY						2021	4.251	10.1039/d1ew00373a	Hybrid	Changing Earth
84	Preface: Advances in paleoclimate data synthesis and analysis of associated uncertainty: towards data-model integration to understand the climate	Jonkers, L, Bothe, O., & Kucera, M.	Clim. Past	17		2577	2581		2021	4.295	10.5194/cp-17-2577-2021	Gold	Changing Earth
85	The impact of nitrogen and sulfur emissions from shipping on the exceedance of critical loads in the Baltic Sea region	Jutterström, S., Moldan, F., Moldanová, J., Karl, M., Matthias, V. & Posch, M.	Atmos. Chem. Phys.	21	20	15827	15845		2021	6.133	10.5194/acp-21-15827-2021	Gold	Changing Earth
86	Introduction to Freva – A Free Evaluation System Framework for Earth System Modeling	Kadow, C., Illing, S., Lucio-Eceiza, E.E., Bergemann, M., Ramadoss, M., Sommer, P.S., Kunst, O., Schartner, T., Pankatz, K., Grieger, J., Schuster, M., Richling, A., Thiemann, H., Kirchner, I., Rust, H.W., Ludwig, T., Cubasch, U. and Ulbrich, U.	Journal of Open Research Software	9	1	13			2021	Scopus	10.5334/jors.253	Gold	Changing Earth
87	Urban Atmospheric Chemistry with the EPISODE- CityChem Model	Karl M., Ramacher, Martin Otto Paul	Springer Proceedings in Complexity	27		235	239		2021	Scopus	10.1007/978-3-662-63760-9_33	closed	Changing Earth
88	Improved determination of technologically critical elements in sediment digests by ICP-MS/MS using N2O as a reaction gas	Klein O., Zimmermann T., Pröfrock D.	Journal of Analytical Atomic Spectrometry	36	7	1524	1532		2021	4.023	10.1039/d1ja00088h	Closed	Changing Earth
89	Hyperspectral optical absorption closure experiment in complex coastal waters	Kostakis I., Twardowski M., Roesler C., Röttgers R., Stramski D., McKee D., Tonizzo A., Drapeau S.	Limnology and Oceanography: Methods	19	9	589	625		2021	2.634	10.1002/lom3.10447	Hybrid	Changing Earth
90	Skilful prediction of cod stocks in the North and Barents Sea a decade in advance	Koul, V; Sguotti, C; Arthun, M; Brune, S; Dusterhus, A; Bogstad, B; Ottersen, G; Baehr, J; Schrum, C	COMMUNICATIONS EARTH & ENVIRONMENT	2	1			140	2021	-	10.1038/s43247-021-00207-6	Gold / Deal	Changing Earth
91	Cities on the coast and patterns of movement between population growth and diffusion	Kovalevsky D.V., Volchenkov D., Scheffran J.	Entropy	23	8			1041	2021	2.524	10.3390/e23081041	Gold	Changing Earth
92	Demand Behaviour for Weather Index Insurance Products in Regions Prone to Agricultural Droughts	Kovalevsky, D.; Máñez Costa, M.	Discontinuity, Nonlinearity, and Complexity	10	4	765	780		2021	Scopus	10.5890/DNC.2021.12.015	Hybrid	Changing Earth

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93	Predictors of utilization of cardiovascular and respiratory emergency department visits - What impact does the environment have? [Prädiktoren der Inanspruchnahme von kardiovaskulären und respiratorischen Notfallaufnahmen - Welchen Einfluss hat die Umwelt?]	Krefis A.C., Fischereit J., Hoffmann P., Sorbe C., Pinnschmidt H., Augustin M., Augustin J.	Gesundheitswesen	83	2	105	113		2021	0.996	10.1055/a-1005-7161	Closed	Changing Earth
94	German Bight storm activity, 1897–2018	Krieger D., Krueger O., Feser F., Weisse R., Tinz B., von Storch H.	International Journal of Climatology	41	S1	E2159	E2177		2021	4.069	10.1002/joc.6837	Hybrid / Deal	Changing Earth
95	Model-based data analysis of the effect of winter mixing on primary production in a lake under reoligotrophication	Krishna S., Ulloa H.N., Kerimoglu O., Minaudo C., Anneville O., Wüest A.	Ecological Modelling	440				109401	2021	2.974	10.1016/j.ecolmodel.2020.109401	Hybrid	Changing Earth
96	Nature-based solutions efficiency evaluation against natural hazards: Modelling methods, advantages and limitations	Kumar P., Debele S.E., Sahani J., Rawat N., Marti-Cardona B., Alfieri S.M., Basu B., Basu A.S., Bowyer P., Charizopoulos N., Gallotti G., Jaakko J., Leo L.S., Loupis M., Menenti M., Mickovski S.B., Mun S.-J., Gonzalez-Ollauri A., Pfeiffer J., Pilla F., Pröll J., Rutzinger M., Santo M.A., Sannigrahi S., Spyrou C., Tuomenvirta H., Zieher T.	Science of the Total Environment	784				147058	2021	7.963	10.1016/j.scitotenv.2021.147058	Hybrid	Changing Earth
97	An overview of monitoring methods for assessing the performance of nature-based solutions against natural hazards	Kumar P., Debele S.E., Sahani J., Rawat N., Marti-Cardona B., Alfieri S.M., Basu B., Basu A.S., Bowyer P., Charizopoulos N., Jaakko J., Loupis M., Menenti M., Mickovski S.B., Pfeiffer J., Pilla F., Pröll J., Pulvirenti B., Rutzinger M., Sannigrahi S., Spyrou C., Tuomenvirta H., Vojinovic Z., Zieher T.	Earth-Science Reviews	217				103603	2021	12.413	10.1016/j.earscirev.2021.103603	Hybrid	Changing Earth
98	Historical increases in land-derived nutrient inputs may alleviate effects of a changing physical climate on the oceanic carbon cycle	Lacroix F., Ilyina T., Mathis M., Laruelle G.G., Regnier P.	Global Change Biology	27	21				2021	10.863	10.1111/gcb.15822	Hybrid	Changing Earth
99	Managing stakeholder perception and engagement in a decarbonising world	Lange, M., Cummins, V.	Renewable and Sustainable Energy Reviews	152		111740			2021	14.982	10.1016/j.rsres.2021.111740	Hybrid	Changing Earth
100	Added value of convection-permitting simulations for understanding future urban humidity extremes: case studies for Berlin and its surroundings	Langendijk G.S., Rechid D., Sieck K., Jacob D.	Weather and Climate Extremes	33				100367	2021	5.338	10.1016/j.wace.2021.100367	Gold	Changing Earth

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101	City Scale Modeling of Ultrafine Particles in Urban Areas with Special Focus on Passenger Ferryboat Emission Impact	Lauenburg, Marvin, Matthias Karl, Volker Matthias, Markus Quante, and Martin O.P. Ramacher	Toxics	10	1				2021	4.146	10.3390/toxics10010003	Gold	Changing Earth
102	Analysis of recurring patchiness in satellite-derived chlorophyll a to aid the selection of representative sites for lake water quality monitoring	Lehmann, M.; Schütt, E.; Hieronymi, M.; Dare, J.; Krasemann, H.	International Journal of Applied Earth Observation and Geoinformation	104				102547	2021	4.65	10.1016/j.jag.2021.102547	Hybrid	Changing Earth
103	Improving Regional Model Skills During Typhoon Events: A Case Study for Super Typhoon Lingling Over the Northwest Pacific Ocean	Li D., Staneva J., Bidlot J.-R., Grayek S., Zhu Y., Yin B.	Frontiers in Marine Science	8				613913	2021	4.912	10.3389/fmars.2021.613913	Gold	Changing Earth
104	Demonstration of a three-dimensional dynamically adaptive atmospheric dynamic framework for the simulation of mountain waves	Li J., Fang F., Steppeler J., Zhu J., Cheng Y., Wu X.	Meteorology and Atmospheric Physics						2021	2.065	10.1007/s00703-021-00828-8	Closed	Changing Earth
105	Interprovincial trade driven relocation of polycyclic aromatic hydrocarbons and lung cancer risk in China	Lian L., Huang T., Ling Z., Li S., Li J., Jiang W., Gao H., Tao S., Liu J., Xie Z., Mao X., Ma J.	Journal of Cleaner Production	280				124368	2021	9.297	10.1016/j.jclepro.2020.124368	Closed	Changing Earth
106	The effect of rotation on double diffusive convection: perspectives from linear stability analysis	Liang, Y.; Carpenter, J.; Timmermans, M.	Journal of Physical Oceanography	51	11	3335	3346		2021	3.373	JPO-D-21-00601	Closed	Changing Earth
107	Drivers of the decadal variability of the North Ionian Gyre upper layer circulation during 1910–2010: a regional modelling study	Liu F., Mikolajewicz U., Six K.D.	Climate Dynamics						2021	4.375	10.1007/s00382-021-05714-y	Hybrid / Deal?	Changing Earth
108	Can environmental conditions at North Atlantic deep-sea habitats be predicted several years ahead? –Taking sponge habitats as an example	Liu, F., Daewel, U., Samuelsen, A., Brune, S., Hanz, U., Pohlmann, H., Baehr, J. and Schrum, C.,	Frontiers in Marine Science	8		1564			2021	4.912	10.3389/fmars.2021.703297	Gold	Changing Earth
109	Drivers of the decadal variability of the North Ionian Gyre upper layer circulation during 1910–2010: a regional modelling study	Liu, F., Mikolajewicz, U., & Six, K.D.	Climate Dynamics						2021	4.375	10.1007/s00382-021-05714-y	Hybrid	Changing Earth
110	Acoustic backscatter analysis of ground-fishing activity in the German North Sea sector	Lüdmann T., Saitz Y.M., Metzging J., Emeis K.-C.	Continental Shelf Research	212				104292	2021	2.391	10.1016/j.csr.2020.104292	Closed	Changing Earth

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111	UAS current mapping: A wave-based heading and position correction	Lund, B.; Dai, H.; Graber, H.; Guigand, C.; Haus, B.; Lodise, J.; Novelli, G.; Özgökmen, T.; Rebozo, M.; Ryan, E.; Carrasco, R.; Horstmann, J.; Streßer, M.	Journal of Atmospheric and Oceanic Technology	38	9	1441	1455		2021	2.075	10.1175/JTECH-D-20-0123.1	Hybrid	Changing Earth
112	Spatial patterns of multi-centennial surface air temperature trends in Antarctica over 1–1000 CE: Insights from ice core records and modeling	Lyu, Z., Goosse, H., Dalaiden, Q., Klein, F., Shi, F., Wagner, S. and P. Braconnot	Quaternary Science Reviews	271				107205	2021	4.112	10.1016/j.quascirev.2021.107205	Closed	Changing Earth
113	A Global Agenda for Advancing Freshwater Biodiversity Research	Madani, A., S. C. Jänig, M. C. Adamescu, K. Adnan, C. Baigun, D. J. Baird, A. Batista-Morales, N. Bonada, L. E. Brown, Q. Cai, J. V. Campos-Silva, V. Clausnitzer, T. Contreras-MacBeath, S. J. Cooke, T. Datry, G. Delacámara, L. De Meester, K. D. B. Dijkstra, V. T. Do, S. Domisch, D. Dudgeon, T. Erős, H. Freitag, J. Freyhof, J. Friedrich, M. Friedrichs-Manthey, J. Geist, M. O. Gessner, P. Goethals, M. Gollock, C. Gordon, H. P. Grossart, G. Gulembuga, P. E. Gutiérrez-Fonseca, P. Haase, D. Hering, H. J. Hahn, C. P. Hawkins, F. He, J. Heino, V. Hermoso, Z. Hogan, F. Hölker, J. M. Jeschke, M. Jiang, R. K. Johnson, G. Kalinkat, B. K. Karimov, A. Kasangaki, I. A. Kimirei, B. Kohlmann, M. Kuemmerlen, J. J. Kuiper, B. Kupilas, S. D. Langhans, R. Lansdown, F. Leese, F. S. Magbanua, S. I. S. Matsuzaki, M. T. Monaghan, L. Mumladze, J. Muzon, P. A. Mvogo Ndongo, J. C. Nejtgaard, O. Nikitina, C. Ochs, O. Odume, J. J. Opperman, H. Patricio, S. Pauls, R. Raghavan, A. Ramírez, B. Rashni, V. Ross-Gillespie, M. J. Samways, R. B. Schäfer, A. Schmidt-Kloiber, O. Seehausen, D. N. Shah, S. Sharma, J. Soininen, N. Sommerwerk, J. D. Stockwell, F. Suhling, R. D. Tachamo, Shah, R. E. Tharme, J. H.	Ecology Letters	-	-	-	-		2021	9,492	10.1111/ele.13931	Hybrid	Changing Earth
114	Reduced Ocean Carbon Sink in the South and Central North Sea (2014–2018) Revealed From FerryBox Observations	Macovei V.A., Petersen W., Brix H., Voynova Y.G.	Geophysical Research Letters	48	11			e2021GL092645	2021	4.720	10.1029/2021GL092645	Hybrid / Deal	Changing Earth
115	Long-term intercomparison of two pCO ₂ instruments based on ship-of-opportunity measurements in a dynamic shelf sea environment	Macovei V.A., Voynova Y.G., Becker M., Triest J., Petersen W.	Limnology and Oceanography: Methods	19	1	37	50		2021	2.634	10.1002/lom3.10403	Hybrid / Deal	Changing Earth
116	Three-dimensional characterization of a coastal mode-water eddy from multiplatform observations and a data reconstruction method	Manso-Narvarte I., Rubio A., Jordà G., Carpenter J., Merkelbach L., Caballero A.	Remote Sensing	13	4	1	22	74	2021	4.848	10.3390/rs13040674	Gold	Changing Earth

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117	First multi-year assessment of Sentinel-1 radial velocity products using HF radar currents in a coastal environment	Martin, Adrien C.H., Christine P. Gommenginger, Benjamin Jacob, Joanna Staneva	Remote Sensing of Environment	268				112758	2021	10.164	10.1016/j.rse.2021.112758	Hybrid	Changing Earth
118	Biogeochemical consequences of a changing Arctic shelf seafloor ecosystem	März, C.; Freitas, F.S.; Faust, J.C.; Godbold, J.A.; Henley, S.F.; Tessin, A.C.; Abbott, G.D.; Airs, R.; Arndt, S.; Barnes, D.K.A.; Grange, L.J.; Gray, N.D.; Head, I.M.; Hendry, K.R.; Hilton, R.G.; Reed, A.J.; Rühl, S.; Solan, M.; Souster, T.A.; Stevenson, M.A.; Tait, K.; Ward, J.; Widdicombe, S.	Ambio	51	2	370	382		2021	5.129	10.1007/s13280-021-01638-3	Hybrid	Changing Earth
119	The role of emission reductions and the meteorological situation for air quality improvements during the COVID-19 lockdown period in central Europe	Matthias V., Quante M., Arndt J.A., Badeke R., Fink L., Petrik R., Feldner J., Schwarzkopf D., Link E.-M., Ramacher M.O.P., Wedemann R.	Atmospheric Chemistry and Physics	21	18	13931	13971		2021	6.133	10.5194/acp-21-13931-2021	Gold	Changing Earth
120	Traffic Emissions 2040—Impact on Air Quality in Germany	Matthias, V., Bieser, J., Quante, M., Seum, S. & Winkler, C.	Air Pollution Modeling and its Application	27		39	44		2021	Scopus	10.1007/978-3-662-63760-9_6	closed	Changing Earth
121	Traffic Emissions 2040—Impact on Air Quality in Germany	Matthias, V., Bieser, J., Quante, M., Seum, S., Winkler, C.	Springer Proceedings in Complexity			39	44		2021	Scopus	10.1007/978-3-662-63760-9_6	closed	Changing Earth
122	Scientific and human errors in a snow model intercomparison	Menard C.B., Essery R., Krinner G., Arduini G., Bartlett P., Boone A., Brutel-Vuilmet C., Burke E., Cuntz M., Dai Y., Decharme B., Dutra E., Fang X., Fierz C., Gusev Y., Hagemann S., Haverd V., Kim H., Lafaysse M., Marke T., Nasonova O., Nitta T., Niwano M., Pomeroy J., Schädler G., Semenov V.A., Smirnova T., Strasser U., Swenson S., Turkov D., Wever N., Yuan H.	Bulletin of the American Meteorological Society	102	1	E61	E79		2021	8.766	10.1175/BAMS-D-19-0329.1	Green	Changing Earth
123	Ocean Glider Flight in the Presence of Surface Waves	Merckelbach, LM; Carpenter, JR	JOURNAL OF ATMOSPHERIC AND OCEANIC TECHNOLOGY	38	7	1265	1275		2021	2.075	10.1175/JTECH-D-20-0206.1	Hybrid	Changing Earth
124	Impact of horizontal resolution on monsoon precipitation for CORDEX-South Asia: A regional earth system model assessment	Mishra, A. K., Kumar, P., Dubey, A. K., Javed, A., Saharwardi, M. S., Sein, D. V., Martyanov, S. D., Jacob, D.	Atmospheric Research	259				105681	2021	5.369	10.1016/j.atmosres.2021.105681	Closed	Changing Earth

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125	Framework for the environmental impact assessment of operational shipping	Moldanová J., Hassellöv I.-M., Matthias V., Fridell E., Jalkanen J.-P., Ytreberg E., Quante M., Tröltzsch J., Maljutenko I., Raudsepp U., Eriksson K.M.	Ambio						2021	5.129	10.1007/s13280-021-01597-9	Closed	Changing Earth
126	An underestimated negative cloud feedback from cloud lifetime changes	Mülmenstädt J., Salzmann M., Kay J.E., Zelinka M.D., Ma P.-L., Nam C., Kretzschmar J., Hörnig S., Quaas J.	Nature Climate Change	11	6	508	513		2021	25.290	10.1038/s41558-021-01038-1	Closed	Changing Earth
127	Submesoscale Phenomena Due to the Brazil Current Crossing of the Vitória-Trindade Ridge	Napolitano D.C., da Silveira I.C.A., Tandon A., Calil P.H.R.	Journal of Geophysical Research: Oceans	126	1			e2020JC016731	2021	3.405	10.1029/2020JC016731	Green	Changing Earth
128	Occurrence and ecological risk assessment of neonicotinoids and related insecticides in the Bohai Sea and its surrounding rivers, China	Naumann T., Bento C.P.M., Wittmann A., Gandrass J., Tang J., Zhen X., Liu L., Ebinghaus R.	Water Research	209				117912	2021	11.236	10.1016/j.watres.2021.117912	Hybrid	Changing Earth
129	Macrofauna as a major driver of benthopelagic exchange in the southern North Sea	Neumann A., van Beusekom J.E.E., Eisele A., Emeis K.-C., Friedrich J., Kröncke I., Logemann E.L., Meyer J., Naderipour C., Schückel U., Wrede A., Zettler M.L.	Limnology and Oceanography	66	6	2203	2217		2021	4.745	10.1002/lno.11748	Hybrid / Deal	Changing Earth
130	Deep Emulators for Differentiation, Forecasting, and Parametrization in Earth Science Simulators	Nonnenmacher M., Greenberg D.S.	Journal of Advances in Modeling Earth Systems	13	7			e2021MS002554	2021	6.660	10.1029/2021MS002554	Gold	Changing Earth
131	Tropical beaches attenuate groundwater nitrogen pollution flowing to the ocean	Oehler T., Ramasamy M., George M.E., Babu S.D.S., Dähne K., Ankele M., Böttcher M.E., Santos I.R., Moosdorf N.	Environmental Science and Technology	55	12	8432	8438		2021	9.028	10.1021/acs.est.1c00759	Closed	Changing Earth
132	Detection and quantification of CO ₂ seepage in seawater using the stoichiometric Cseep method: Results from a recent subsea CO ₂ release experiment in the North Sea	Omar A.M., García-Ibáñez M.I., Schaap A., Oleynik A., Esposito M., Jeansson E., Loucaides S., Thomas H., Alendal G.	International Journal of Greenhouse Gas Control	108				103310	2021	3.738	10.1016/j.ijggc.2021.103310	Hybrid	Changing Earth
133	Seasonal Stratification and Biogeochemical Turnover in the Freshwater Reach of a Partially Mixed Dredged Estuary	Pein J., Eisele A., Sanders T., Daewel U., Stanev E.V., van Beusekom J.E.E., Staneva J., Schrum C.	Frontiers in Marine Science	8				623714	2021	4.912	10.3389/fmars.2021.623714	Gold	Changing Earth
134	Channel curvature improves water quality and nutrient filtering in an artificially deepened mesotidal idealized estuary	Pein, J.; Staneva, J.; Daewel, U.; Schrum, C.	Continental Shelf Research	231				104582	2021	2.391	10.1016/j.csr.2021.104582	Hybrid	Changing Earth

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135	A roadmap for high-resolution satellite soil moisture applications – confronting product characteristics with user requirements	Peng, J., Albergel, C., Balenzano, A., Brocca, L., Cartus, O., Cosh, M.H., Crow, W.T., Dabrowska-Zielinska, K., Dadson, S., Davidson, M.W.J., de Rosnay, P., Dorigo, W., Gruber, A., Hagemann, S., Hirschi, M., Kerr, Y.H., Lovergine, F., Mahecha, M.D., Marzahn, P., Mattia, F., Musial, J.P., Preuschmann, S., Reichle, R.H., Satalino, G., Silgram, M., van Bodegom, P.M., Verhoest, N.E.C., Wagner, W., Walker, J.P., Wegmüller, U., & Loew, A.	Remote Sensing of Environment	252				112162	2021	10.164	10.1016/j.rse.2020.112162	Hybrid	Changing Earth
136	Livelihood transitions transformed households' carbon footprint in the Three Gorges Reservoir area of China	Peng, Y., Liang, E.Y., Scheffran, J., Yan, J., Li, M., Jiang, P., Wang, Y., Cremades, R.	Journal of Cleaner Production	328					2021	7.246	10.1016/j.jclepro.2021.129607	Closed	Changing Earth
137	On the diurnal cycle and variability of winds in the lower planetary boundary layer: evaluation of regional reanalyses and hindcasts	Petrik R., Geyer B., Rockel B.	Tellus, Series A: Dynamic Meteorology and Oceanography	73	1	1	28		2021	2.000	10.1080/16000870.2020.1804294	Gold	Changing Earth
138	Ten New Insights in Climate Science 2020 – a Horizon Scan	Pihl, E., Eva Alfredsson Magnus Bengtsson, Kathryn J Bowen, Vanesa Castan Broto, Kuei Tien Chou, Helen Cleugh, Kristie Ebi, Clea M Edwards, Eleanor Fisher, Pierre Friedlingstein, Alex Godoy-Faúndez, Mukesh Gupta, Alexandra R Harrington, Katie Hayes, Bronwyn M Hayward, Sophie R Hebden, Thomas Hickmann, Gustaf Hugelius, Tatiana Ilyina, Robert B Jackson, Trevor F Keenan, Ria A Lambino, Sebastian Leuzinger, Mikael Malmaeus, Robert I McDonald, Celia McMichael, Clark A Miller, Matteo Muratori, Nidhi Nagabhatla, Harini Nagendra, Cristian Passarello, Josep Penuelas, Julia Pongratz, Johan Rockström, Patricia Romero-Lankao, Joyashree Roy, Adam A Scaife, Peter Schlosser, Edward Schuur, Michelle Scobie, Steven C Sherwood, Giles B Sioen, Jakob Skovgaard, Edgardo A Sobenes Obregon, Sebastian Sonntag, Joachim H Spangenberg, Otto Sijpers, Leena Srivastava, Detlef B Stammer, Pedro HC Torres, Merritt R Turetsky, Anna M Ukkola, Detlef P van Vuuren, Christina Voigt, Chadia Wannous, Mark D Zelinka	Global Sustainability	4				e5	2021	Scopus	10.1017/sus.2021.2	Gold	Changing Earth
139	Evaluation of a simple analytical model for offshore wind farm wake recovery by in situ data and Weather Research and Forecasting simulations	Platis A., Hundhausen M., Mauz M., Siedersleben S., Lampert A., Bärfuss K., Djath B., Schulz-Stellenfleth J., Canadillas B., Neumann T., Emeis S., Bange J.	Wind Energy	24	3	212	228		2021	2.730	10.1002/we.2568	Hybrid	Changing Earth

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140	Global terrestrial water storage and drought severity under climate change	Pokhrel Y., Felfelani F., Satoh Y., Boulange J., Burek P., Gädeke A., Gerten D., Gosling S.N., Grillakis M., Gudmundsson L., Hanasaki N., Kim H., Koutroulis A., Liu J., Papadimitriou L., Schewe J., Müller Schmied H., Stacke T., Telteu C.-E., Thiery W., Veldkamp T., Zhao F., Wada Y.	Nature Climate Change	11	3	226	233		2021	25.290	10.1038/s41558-020-00972-w	Green	Changing Earth
141	Physical processes controlling mud depocenter development on continental shelves – Geological, oceanographic, and modeling concepts	Porz L., Zhang W., Hanebuth T.J.J., Schrum C.	Marine Geology	432				106402	2021	3.548	10.1016/j.margeo.2020.106402	Closed	Changing Earth
142	Density-driven bottom currents control development of muddy basins in the southwestern Baltic Sea	Porz L., Zhang W., Schrum C.	Marine Geology	438				106523	2021	3.548	10.1016/j.margeo.2021.106523	Closed	Changing Earth
143	Multi-use of the sea as a sustainable development instrument in five eu sea basins	Przedzimirska J., Zaucha J., Calado H., Lukic I., Bocci M., Ramieri E., Varona M.C., Barbanti A., Depellegrin D., De Sousa Vergilio M., Schultz-Zehden A., Onyango V., Papaioannou E., Buck B.H., Krause G., Felix Schupp M., Läkamp R., Szeffler K., Michałek M., Maniopolou M., Vassilopoulou V., Kyriazi Z., Gawlikowska-Hueckel K., Szultka S., Orobello C., Gee K., Buchanan B., Lazić M.	Sustainability (Switzerland)	13	15			8159	2021	3.251	10.3390/su13158159	Gold	Changing Earth
144	Surface and tropospheric response of north atlantic summer climate from paleoclimate simulations of the past millennium	Pyrina M., Moreno-Chamorro E., Wagner S., Zorita E.	Atmosphere	12	5			568	2021	2.686	10.3390/atmos12050568	Gold	Changing Earth
145	Statistical seasonal prediction of European summer mean temperature using observational, reanalysis and satellite data	Pyrina, M., Nonnenmacher, M., Wagner, S., & Zorita, E	Weather and Forecasting	36	4	1537	1560		2021	3.025	10.1175/WAF-D-20-0235.1	Hybrid	Changing Earth
146	The Impact of BVOC Emissions from Urban Trees on O3 Production in Urban Areas Under Heat-Period Conditions	Ramacher, Martin Otto Paul, Karl M., Bieser J., Feldner J.	Air Pollution Modeling and its Application XXVII	27					2021	Scopus	10.1007/978-3-662-63760-9_34	closed	Changing Earth
147	The UrbEm Hybrid Method to Derive High-Resolution Emissions for City-Scale Air Quality Modeling	Ramacher, Martin Otto Paul; Kakouri, A.; Speyer, O.; Feldner, J.; Karl, M.; Timmermans, R.; Denier van der Gon, H.; Kuenen, J.; Gerasopoulos, E.; Athanasopoulou, E.	Atmosphere	12		1404			2021	2.686	10.3390/atmos12111404	Gold	Changing Earth

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148	Formation and Evolution of a Freshwater Plume in the Northwestern Tropical Atlantic in February 2020	Reverdin G, Olivier L, Foltz G.R., Speich S., Karstensen J., Horstmann J, Zhang D, Laxenaire R., Carton X., Branger H., Carrasco R., Boutin J.	Journal of Geophysical Research: Oceans	126	4			e2020JC016981	2021	3.405	10.1029/2020JC016981	Green	Changing Earth
149	Technological and social networks of a pastoralist artificial society: agent-based modeling of mobility patterns	Rodriguez-Lopez, J.M., Schickhoff, M., Sengupta, S., Scheffran, J.	J Comput Soc Sc						2021	Master Journal List, aber kein Impact	10.1007/s42001-020-00100-w	Hybrid	Changing Earth
150	Integrated Research for Integrated Ocean Management	Rölfer L, Liconti A., Prinz N, Klöcker C.A.	Frontiers in Marine Science	8				693373	2021	4.912	10.3389/fmars.2021.693373	Gold	Changing Earth
151	Predicting residential electricity consumption using aerial and street view images	Rosenfelder M, Wussow M, Gust G., Cremades R., Neumann D.	Applied Energy	301				117407	2021	9.746	10.1016/j.apenergy.2021.117407	Closed	Changing Earth
152	Structuring climate service co-creation using a business model approach	Rubio-Martin, A, Mañez Costa, M., Pulido-Velazquez, M., García-Prats, A., Celliers, L, Llarío, F., Macian, J.	Earth's Future						2021	7.495	10.1029/2021EF002181	Gold	Changing Earth
153	Decadal patterns and trends in benthic-pelagic exchange processes	Rühl S., Thompson C.E.L., Queirós A.M., Widdicombe S.	Journal of Marine Systems	222				103595	2021	2.542	10.1016/j.jmarsys.2021.103595	Closed	Changing Earth
154	A modelling study of temporal and spatial pCO2 variability on the biologically active and temperature-dominated Scotian Shelf	Rutherford, K.; Fennel, K.; Atamanchuk, D; Wallace, D.; Thomas, H.	Biogeosciences	23	2118	6271	6286		2021	4,295	10.5194/bg-18-6271-2021	Gold	Changing Earth
155	Shape matters: the relationship between cell geometry and diversity in phytoplankton	Ryabov A., Kerimoglu O., Litchman E., Olenina I, Roselli L, Basset A., Stanca E, Blasius B.	Ecology Letters	24	4	847	861		2021	9.492	10.1111/ele.13680	Hybrid	Changing Earth
156	CMEMS-Based Coastal Analyses: Conditioning, Coupling and Limits for Applications	Sanchez-Arcilla, A., Staneva, J., Cavaleri, L, Badger, M., Bidlot, J., Sorensen, J.T., Hansen, L.B., Martin, A., Saulter, A., Espino, M., Miglietta, M.M., Mestres, M., Bonaldo, D., Pezzutto, P., Schulz-Stellenfleh, J., Wiese, A., Larsen, X., Carniel, S., Bolaños, R., Abdalla, S., & Tiesi, A.	Front. Mar. Sci.	8				604741	2021	4.912	10.3389/fmars.2021.604741	Gold	Changing Earth
157	Turbulence and mixing in the arctic ocean's amundsen gulf	Scheifele B, Waterman S., Carpenter J.R.	Journal of Physical Oceanography	51	1	169	186		2021	3.373	10.1175/JPO-D-20-0057.1	Green	Changing Earth

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158	Optimisation of Parameters in a German Bight Circulation Model by 4DVAR Assimilation of Current and Water Level Observations	Schulz-Stellenfleth J., Foerderreuther S., Horstmann J., Staneva J.	Frontiers in Marine Science	8				648266	2021	4.912	10.3389/fmars.2021.648266	Gold	Changing Earth
159	Mapping and simulation of urban flooding after heavy rain events	Schütze, A.A., Banning, A., Bender, S.	Grundwasser	26		87	97		2021	0.575	10.1007/s00767-020-00470-y	Closed	Changing Earth
160	A ship emission modeling system with scenario capabilities	Schwarzkopf, D.A., Petrik, R., Matthias, V., Quante, M., Majamäki, E., & Jalkanen, J.-P.	Atmospheric Environment: X	12				100132	2021	Scopus	10.1016/j.aea.2021.100132	Gold	Changing Earth
161	Spatial Patterns of Diffusive Methane Emissions Across Sediment Deposited Riparian Zones in Hydropower Reservoirs	Shi, W., Q. Chen, J. Zhang, J. Lu, Y. Chen, B. Pang, J. Yu, and B. R. Van Dam	Journal of Geophysical Research: Biogeosciences	126	3	-	-		2021	3,822	10.1029/2020JG005945	Closed	Changing Earth
162	Weather extremes over Europe under 1.5 and 2.0°C global warming from HAPPI regional climate ensemble	Sieck K., Nam C., Bouwer L.M., Rechid D., Jacob D.	Earth System Dynamics	12	2	457	468		2021	5.540	10.5194/esd-12-457-2021	Gold	Changing Earth
163	Collection of human and environmental data on pesticide use in Europe and Argentina: Field study protocol for the	Silva V., Alaoui A., Schlünssen V., Vested A., Graumans M., van Dael M., Trevisan M., Suciú N., Mol H., Beekmann K., Figueiredo D., Harkes P., Hofman J., Kandeler E., Abrantes N., Campos I.,	PLoS ONE	116	11			e0259748	2021	3.240	10.1371/journal.pone.0259748	Gold	Changing Earth
164	Disclosing the truth: Are models better than observations?	Skogen MD, Ji R, Akimova A, Daewel U and others	Mar Ecol Prog Ser	680		7	13		2021	2.824	10.3354/meps13574	Closed	Changing Earth
165	COSMO-CLM regional climate simulations in the Coordinated Regional Climate Downscaling Experiment (CORDEX) framework: a review	Sørland, S. L., Brogli, R., Pothapakula, P. K., Russo, E., Van de Walle, J., Ahrens, B., Anders, I., Bucchignani, E., Davin, E. L., Demory, M.-E., Dosio, A., Feldmann, H., Früh, B., Geyer, B., Keuler, K., Lee, D., Li, D., van Lipzig, N. P. M., Min, S.-K., Panitz, H.-J., Rockel, B., Schär, C., Steger, C., and Thiery, W.	Geosci. Model Dev.	14		5125	5154		2021	6.135	10.5194/gmd-14-5125-2021	Gold	Changing Earth
166	Oxygen Consumption of Resuspended Sediments of the Upper Elbe Estuary: Process Identification and Prognosis	Spieckermann, M.; Gröngroft, A.; Karrasch, M.; Neumann, A.; Eschenbach, A.	Aquatic Geochemistry	-	3032	-	-		2021	1,517	10.1007/s10498-021-09401-6	Hybrid	Changing Earth

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167	Global exposure of population and land-use to meteorological droughts under different Warming Levels and Shared Socioeconomic Pathways: A Coordinated	Spinoni J., Barbosa P., Bucchignani E., Cassano J., Cavazos T., Cescatti A., Christensen J.H., Christensen O.B., Coppola E., Evans J., Forzieri G., Geyer B., Giorgi F., Jacob D., Katzfey J., Koenigk T., Laprise R., Lennard C.J., Levent Kurnaz M., Li D.,	International Journal of Climatology						2021	4.069	10.1002/joc.7302	Hybrid	Changing Earth
168	Evaluating nature-based solution for flood reduction in spercheios river basin under current and future climate conditions	Spyrou C., Loupis M., Charizopoulos N., Apostolidou I., Mentzafou A., Varlas G., Papadopoulos A., Dimitriou E., Panga D., Gkeka L., Bowyer P., Pfeifer S., Debele S.E., Kumar P.	Sustainability (Switzerland)	13	7			3885	2021	3.251	10.3390/su13073885	Gold	Changing Earth
169	HydroPy (v1.0): a new global hydrology model written in Python	Stacke, T. and S. Hagemann	Geoscientific Model Development	14	12	7795	7816		2021	5,240	10.5194/gmd-14-7795-2021	Gold	Changing Earth
170	Interannual Change in Mode Waters: Case of the Black Sea	Stanev E.V., Chtirkova B.	Journal of Geophysical Research: Oceans	126	2			e2020JC016429	2021	3.405	10.1029/2020JC016429	Hybrid / Deal	Changing Earth
171	Geothermal Convection and Double Diffusion Based on Profiling Floats in the Black Sea	Stanev, EV; Chtirkova, B; Peneva, E	Geophysical Research Letters	48	2			e2020GL091788	2021	4.720	10.1029/2020GL091788	Hybrid / Deal	Changing Earth
172	Effects of Wave-Induced Processes in a Coupled Wave-Ocean Model on Particle Transport Simulations	Staneva J, Ricker M, Carrasco Alvarez R, Breivik Ø, Schrum C.	Water	13	4	415	415		2021	3.103	10.3390/w13040415	Gold	Changing Earth
173	GCOAST: Skill assessments of coupling wave and circulation models (NEMO-WAM)	Staneva J., Grayek S., Behrens A., Günther H.	Journal of Physics: Conference Series	1730	1			12071	2021	Scopus	10.1088/1742-6596/1730/1/012071	Gold	Changing Earth
174	Multidimensional Food Security Nexus in Drylands under the Slow Onset Effects of Climate Change.	Stavi, I.; Paschalidou, A.; Kyriazopoulos, A.P.; Halbac-Cotoara-Zamfir, R.; Siad, S.M.; Suska-Malawska, M.; Savic, D.; Roque de Pinho, J.; Thalheimer, L.; Williams, D.S.; Hashimshony-Yaffe, N.; van der Geest, K.; Cordovil, C.M.d.S.; Ficko, A.	Land	10 (12)	1350				2021	3.398	10.3390/land10121350	Gold	Changing Earth
175	Evaluating Uncertainties in Reconstructing the Pre-eutrophic State of the North Sea	Stegert C., Lenhart H.-J., Blauw A., Friedland R., Leujak W., Kerimoglu O.	Frontiers in Marine Science	8				637483	2021	4.912	10.3389/fmars.2021.637483	Gold	Changing Earth
176	Increasing the depth of a Land Surface Model. Part II: Temperature sensitivity to improved subsurface thermodynamics and associated permafrost response	Steinert, N.J., J.F. González-Rouco, C. Melo-Aguilar, F. García-Pereira, E.J. García-Bustamante, P. de Vrese, V. Alexeev, J.H. Jungclaus, S.J. Lorenz and S. Hagemann	Journal of Hydrometeorology	12		3231	3254		2021	4.349	10.1175/JHM-D-21-0023.1	Closed	Changing Earth

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177	Agreement of analytical and simulation-based estimates of the required land depth in climate models	Steinert, N.J., J.F. González-Rouco, C. Melo-Aguilar, F. García-Pereira, E.J. García-Bustamante, P. de Vrese, V. Alexeev, J.H. Jungclaus, S.J. Lorenz and S. Hagemann	Geophys. Res. Letters	48	20				2021	4.720	10.1029/2021GL094273	Closed	Changing Earth
178	Evaluation of marine spatial planning requires fit for purpose monitoring strategies	Stelzenmüller V., Cormier R., Gee K., Shucksmith R., Gubbins M., Yates K.L., Morf A., Nic Aonghusa C., Mikkelsen E., Tweddle J.F., Peccu E., Kannen A., Clarke S.A.	Journal of Environmental Management	278				111545	2021	6.789	10.1016/j.jenvman.2020.111545	Closed	Changing Earth
179	Resilience through climate services	Stewart Ibarra, A. M., Hewitt, C., Winarto, Y. T., Walker, S., Keener, V. W., Bayala, J., Christel, I., Bloomfield, H., Halsnæs, K., Jacob, D., Brasseur, G. P., Haigh, T., van den Hurk, B.	One Earth	4	8	1050	1054		2021	Scopus	10.1016/j.oneear.2021.08.002	Closed	Changing Earth
180	On the Interpretation of Coherent Marine Radar Backscatter From Surf Zone Waves	Stresser M., Seemann J., Carrasco R., Cysewski M., Horstmann J., Baschek B., Deane G.	IEEE Transactions on Geoscience and Remote Sensing						2021	5.600	10.1109/TGRS.2021.3103417	Hybrid	Changing Earth
181	Challenges and best-practices of co-creation: A qualitative interview study in the field of climate services	Suhari, M., Dressel, M., Schuck-Zöller, S., Held, H.	Climate Services	25					2021	5.656	10.1016/j.climser.2021.10.0282	Gold	Changing Earth
182	Reframing climate services to support municipal and regional planning	Swart, R., Celliers, L., Collard, M., Garcia Prats, A., Huang-Lachmann, J.-T., Llaró Sempere, F., de Jong, F., Múñez Costa, M., Martínez, G., Pulido Velazquez, M., Rubio Martín, A., Segretier, W., Stattner, E., Timmermans, W.	Climate Services	22				100227	2021	5.656	10.1016/j.climser.2021.10.0227	Gold	Changing Earth
183	Mechanisms of Rainfall Biases in two CORDEX-CORE Regional Climate Models at rainfall peaks over Central Equatorial Africa	Tamoffo, A. T., Amekudzi, L. K., Weber, T., Vondou, D. A., Yamba, E. I., Jacob, D.	Journal of Climate	35	2				2021	5.148	10.1175/JCLI-D-21-0487.1	Closed	Changing Earth
184	Understanding each other's models: an introduction and a standard representation of 16 global water models to support intercomparison, improvement, and communication	Telteu, CE; Schmied, HM; Thiery, W; Leng, GY; Burek, P; Liu, XC; Boulange, JES; Andersen, LS; Grillakis, M; Gosling, SN; Satoh, Y; Rakovec, O; Stacke, T; Chang, JF; Wanders, N; Shah, HL; Trautmann, T; Mao, GQ; Hanasaki, N; Koutroulis, A; Pokhrel, Y; Samaniego, L; Wada, Y; Mishra, V; Liu, JG; Doll, P; Zhao, F; Gadeke, A; Rabin, SS; Herz, F	Geoscientific Model Development	14	6	3843	3878		2021	6.135	10.5194/gmd-14-3843-2021	Gold	Changing Earth
185	The North Sea Light Climate: Analysis of Observations and Numerical Simulations	Thewes, D.; Stanev, E.; Zielinski, O.	JGR Oceans	126	11			e2021JC017697	2021	3.405	10.1029/2021JC017697	Hybrid	Changing Earth

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186	Intergenerational inequities in exposure to climate extremes	Thiery, W., S. Lange, J. Rogelj, C. F. Schleussner, L. Gudmundsson, S. I. Seneviratne, M. Andrijevic, K. Frieler, K. Emanuel, T. Geiger, D. N. Bresch, F. Zhao, S. N. Willner, M. Büchner, J. Volkholz, N. Bauer, J. Chang, P. Ciais, M. Dury, L. François, M. Grillakis, S. N. Gosling, N. Hanasaki, T. Hickler, V. Huber, A. Ito, J. Jägermeyr, N. Khabarov, A. Koutroulis, W. Liu, W. Lutz, M. Mengel, C. Müller, S. Ostberg, C. P. O. Reyer, T. Stacke, Wada, Y.	Science	374	6564	158	160		2021	47,728	10.1126/science.abi7339	Closed	Changing Earth
187	Global evidence of constraints and limits to human adaptation	Thomas A., Theokritoff E., Lesnikowski A., Reckien D., Jagannathan K., Cremades R., Campbell D., Joe E.T., Sitati A., Singh C., Segnon A.C., Pentz B., Musah-Surugu J.I., Mullin C.A., Mach K.J., Gichuki L., Galappaththi E., Chalastani V.I., Ajibade I., Ruiz-Díaz R., Grady C., Garschagen M., Ford J., Bowen K., Global Adaptation Mapping Initiative Team	Regional Environmental Change	21	3			85	2021	3.678	10.1007/s10113-021-01808-9	Hybrid	Changing Earth
188	Wave-Driven Flow Along a Compact Marginal Ice Zone	Thomson J., Lund B., Hargrove J., Smith M.M., Horstmann J., MacKinnon J.A.	Geophysical Research Letters	48	3			e2020GL090735	2021	4.720	10.1029/2020GL090735	Hybrid	Changing Earth
189	Effects of dissolved oxygen and nutrients from the Kuroshio on hypoxia off the Changjiang River estuary	Tian D., Zhou F., Zhang W., Zhang H., Ma X., Guo X.	Journal of Oceanology and Limnology						2021	1.265	10.1007/s00343-021-0440-3	Closed	Changing Earth
190	Oxygen and Nutrient Trapping in the Southern Benguela Upwelling System	Tim Rixen, Niko Lahajnar, Tarron Lamont, Rolf Koppelman, Bettina Martin, Justus E. E. van Beusekom, Claire Siddiqui, Keshnee Pillay and Luisa Meiritz	Frontiers in Marine Science	8				730591	2021	4.912	10.3389/fmars.2021.730591	Gold	Changing Earth
191	Evaluation of regional climate models ALARO-0 and REMO2015 at 0.22° resolution over the CORDEX Central Asia domain	Top S., Kotova L., De Cruz L., Aniskevich S., Bobylev L., De Troch R., Gnatiuk N., Gobin A., Hamdi R., Kriegsmann A., Rea Remedio A., Sakalli A., Van De Vyver H., Van Schaeybroeck B., Zandersons V., De Maeyer P., Termonia P., Caluwaerts S.	Geoscientific Model Development	14	3	1267	1293		2021	6.135	10.5194/gmd-14-1267-2021	Gold	Changing Earth
192	Pollution in the Arctic Ocean: An overview of multiple pressures and implications for ecosystem services	Townhill, B.L.; Reppas-Chrysovitsinos, E.; Sühring, R.; Halsall, C.J.; Mengo, E.; Sanders, T.; Dähnke, K.; Crabeck, O.; Kaiser, J.; Birchenough, S.N.R.	Ambio	51	2	471	483		2021	5.129	10.1007/s13280-021-01657-0	Hybrid	Changing Earth
193	What's in the water? – Target and suspect screening of contaminants of emerging concern in raw water and drinking water from Europe and Asia	Tröger R., Ren H., Yin D., Postigo C., Nguyen P.D., Baduel C., Golovko O., Been F., Joerss H., Boleda M.R., Polesello S., Roncoroni M., Taniyasu S., Menger F., Ahrens L., Yin Lai F., Wiberg K.	Water Research	198				117099	2021	11.236	10.1016/j.watres.2021.117099	Hybrid	Changing Earth

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194	Climate communication: The long way from knowledge to action[Klimakommunikation - der lange Weg vom Wissen zur Umsetzung Einleitung zum Schwerpunkt]	Trümper, S, Beck, M.-L.	GAIA - Ecological Perspectives for Science and Society	30	3	161			2021	2.506	10.14512/gaia.30.3.6	Hybrid	Changing Earth
195	Transformative climate communication: Triggering change in science and society[Transformative Klimakommunikation: Veränderungsprozesse in Wissenschaft und Gesellschaft anstoßen]	Trümper, S, Beck, M.-L.	GAIA - Ecological Perspectives for Science and Society	30	3	162	167		2021	2.506	10.14512/gaia.30.3.7	Hybrid	Changing Earth
196	Mainstreaming the nexus approach in climate services will enable coherent local and regional climate policies	Tudose, N. C., Cremades, R., Broekman, A., Sanchez-Plaza, A., Mitter, H., Marin, M.	Advances in Climate Change Research	12	5	752	755		2021	4.130	10.1016/j.accordion.2021.08.005	Gold	Changing Earth
197	Understanding the circulation in the deep, micro-tidal and strongly stratified Congo River estuary	Vallaey V., Lambrechts J., Delandmeter P., Pätsch J., Spitz A., Hanert E., Deleersnijder E.	Ocean Modelling	167				101890	2021	3.686	10.1016/j.oceanmod.2021.101890	Closed	Changing Earth
198	Global Trends in Air-Water CO2 Exchange Over Seagrass Meadows Revealed by Atmospheric Eddy Covariance	Van Dam B., Polsenaere P., Barreras-Apodaca A., Lopes C., Sanchez-Mejia Z., Tokoro T., Kuwae T., Loza L.G., Rutgersson A., Fourqurean J., Thomas H.	Global Biogeochemical Cycles	35	4			e2020GB006848	2021	5.703	10.1029/2020GB006848	Hybrid / Deal	Changing Earth
199	Water temperature control on CO2 flux and evaporation over a subtropical seagrass meadow revealed by atmospheric eddy covariance	Van Dam B.R., Lopes C.C., Polsenaere P., Price R.M., Rutgersson A., Fourqurean J.W.	Limnology and Oceanography	66	2	510	527		2021	4.745	10.1002/lno.11620	Hybrid / Deal	Changing Earth
200	Overstated Potential for Seagrass Meadows to Mitigate Coastal Ocean Acidification	Van Dam, B.; Lopes, C.; Zeller, M.; Ribas-Ribas, M.; Wang, H.; Thomas, H.	Frontiers in Marine Science	-	2685	729992	-		2021	4,912	10.3389/fmars.2021.729992	Gold	Changing Earth
201	Calcification-driven CO2 emissions exceed "Blue Carbon" sequestration in a carbonate seagrass meadow	Van Dam, B.; Zeller, M.; Lopes, C.; Smyth, A.; Böttcher, M.; Osburn, C.; Zimmerman, T.; Pröfrock, D.; Fourqurean, J.; Thomas, H.	Science Advances	51	2650	eabj1372	-		2021	14,143	10.1126/sciadv.abj1372	Gold	Changing Earth
202	Sensitivity of the fish community to different prey fields and importance of spatial-seasonal patterns	van de Wolfshaar KE, Daewel U, Hjøllø SS, Troost TA, Kreus M, Pätsch J, Ji R, Maar M	Mar Ecol Prog Ser	680		79	95		2021	2.824	10.3354/meps13885	Closed	Changing Earth
203	A methodology for attributing the role of climate change in extreme events: A global spectrally nudged storyline	Van Garderen L., Feser F., Shepherd T.G.	Natural Hazards and Earth System Sciences	21	1	171	186		2021	4.345	10.5194/nhess-21-171-2021	Gold	Changing Earth

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204	Icon in climate limited-Area mode (icon release version 2.6.1): A new regional climate model	Van Pham T., Steger C., Rockel B., Keuler K., Kirchner I., Mertens M., Rieger D., Zäng G., Früh B.	Geoscientific Model Development	14	2	985	1005	9851005	2021	6.135	10.5194/gmd-14-985-2021	Gold	Changing Earth
205	Evaluation of the Large EURO-CORDEX Regional Climate Model Ensemble	Vautard R., Kadyrov N., Iles C., Boberg F., Buonomo E., Bülow K., Coppola E., Corre L., van Meijgaard E., Nogherotto R., Sandstad M., Schwingshackl C., Somot S., Aalbers E., Christensen O.B., Ciarlo J.M., Demory M.-E., Giorgi F., Jacob D., Jones R.G., Keuler K., Kjellström E., Lenderink G., Levvasseur G., Nikulin G., Sillmann J., Solidoro C., Sørland S.L., Steger C., Teichmann C., Warrach-Sagi K., Wulfmeyer V.	Journal of Geophysical Research: Atmospheres	126	17			e2019JD032344	2021	4.261	10.1029/2019JD032344	Green	Changing Earth
206	Qualitative and Quantitative Evaluation of Sulfur-Containing Compound Types in Heavy Crude Oil and Its Fractions	Vetere A., Pröfrock D., Schrader W.	Energy and Fuels	35	10	8723	8732		2021	3.605	10.1021/acs.energyfuels.1c00491	Hybrid	Changing Earth
207	Simulation of chemical transport model estimates by means of a neural network using meteorological data	Vlasenko A., Matthias V., Callies U.	Atmospheric Environment	254				118236	2021	4.798	10.1016/j.atmosenv.2021.118236	Hybrid	Changing Earth
208	Copernicus Marine Service Ocean State Report, Issue 5	von Schackmann K., Le Traon P.-Y., Smith K., (Chair), Pascual A., Djavidnia S., Gattuso J.-P., Grégoire M., Aaboe S., Alari V., Alexander B.E., Alonso-Martirena A., Aydogdu A., Azzopardi J., Bajo M., Barbariol F., Batistić M., Behrens A., Ismail S.B., Benetazzo A., Bitetto I., Borghini M., Bray L., Capet A., Carlucci R., Chatterjee S., Chiggiato J., Ciliberti S., Cipriano G., Clementi E., Cochrane P., Cossarini G., D'Andrea L., Davison S., Down E., Drago A., Druon J.-N., Engelhard G., Federico I., Garić R., Gauci A., Gerin R., Geyer G., Giesen R., Good S., Graham R., Grégoire M., Greiner E., Gundersen K., Hélaouët P., Hendricks S., Heymans J.J., Holt J., Hure M., Juza M., Kassis D., Kellett P., Knol-Kauffman M., Kountouris P., Kōuts M., Lagemaat P., Lavergne T., Legeais J.-F., Traon P.-Y.L., Libralato S., Lien V.S., Lima L., Lind S., Liu Y., Macías D., Maljutenko I., Mangin A., Männik A., Marinova V., Martellucci R., Masnadi F., Mauri E., Mayer M., Menna M., Meulders C., Møgster J.S., Monier M., Mork K.A., Müller M., Nilsen J.E.Ø., Notarstefano G., Oviedo J.L., Palermé C., Palialexis A., Panzeri D., Pardo S., Peneva E., Pezzutto P., Pirro A., Platt T., Poulain P.-M., Prieto L., Querin S., Rabenstein L., Rai R.P.,	Journal of Operational Oceanography	14	S1	1	185		2021	3.471	10.1080/1755876X.2021.1946240	Hybrid	Changing Earth

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209	Chinese lockdown as aerosol reduction experiment	von Storch H., Geyer B., Li Y., Matthias V., Rockel B.	Advances in Climate Change Research						2021	4.130	10.1016/j.acecre.2021.03.003	Gold	Changing Earth
210	Revisiting Hansen & Suter's suggestion of bimodality in the Northern Hemisphere midlatitude circulation	von Storch H., Zorita E.	Dynamics of Atmospheres and Oceans	95				101241	2021	1.319	10.1016/j.dynatmoce.2021.101241	Hybrid	Changing Earth
211	Perceptions of an endangered Baltic Sea	von Storch, H.	Oceanologia						2021	2.427	10.1016/j.ocean.2021.08.005	Gold	Changing Earth
212	All options, not silver bullets, needed to limit global warming to 1.5 °C: A scenario appraisal	Warszawski L., Kriegler E., Lenton T.M., Gaffney O., Jacob D., Klagenfeld D., Koide R., Costa M.M., Messner D., Nakicenovic N., Schellnhuber H.J., Schlosser P., Takeuchi K., van der Leeuw S., Whiteman G., Rockström J.	Environmental Research Letters	16	6			64037	2021	6.793	10.1088/1748-9326/abfec	Gold	Changing Earth
213	MOSES: A Novel Observation System to Monitor Dynamic Events Across Earth Compartments	Weber, U.; Attinger, S.; Baschek, B.; Boike, J.; Borchardt, D.; Brix, H.; Brüggemann, N.; Busmann, I.; Dietrich, P.; Fischer, P.; Greinert, J.; Hajsek, I.; Kamjunke, N.; Kerschke, D.; Kiendler-Scharr, A.; Körtzinger, A.; Kottmeier, C.; Merz, B.; Merz, R.; et al.	Bulletin of the American Meteorological Society						2021	8.766	10.1175/BAMS-D-20-0158.1	Closed	Changing Earth
214	Climate change effects on marine protected areas: Projected decline of benthic species in the North Sea	Weinert, M., Mathis, M., Kröncke, I., Pohlmann, T., Reiss, H.	Marine Environmental Research	163				105230	2021	3.130	10.1016/j.marenvres.2020.105230	Hybrid	Changing Earth
215	Sea level dynamics and coastal erosion in the Baltic Sea region	Weisse R., Dailidiene I., Hünicke B., Kahma K., Madsen K., Omstedt A., Parnell K., Schöne T., Soomere T., Zhang W., Zorita E.	Earth System Dynamics	12	3	871	898		2021	5.540	10.5194/esd-12-871-2021	Gold	Changing Earth
216	Disentangling multiple chemical and non-chemical stressors in a lotic ecosystem using a longitudinal approach	Weitere M., Altenburger R., Anlanger C., Baborowski M., Bärlund I., Beckers L.-M., Borchardt D., Brack W., Brase L., Busch W., Chatzinotas A., Deutschmann B., Eligehausen J., Frank K., Graeber D., Griebler C., Hagemann J., Herzsprung P., Hollert H., Inostroza P.A., Jäger C.G., Kallies R., Kamjunke N., Karrasch B., Kaschuba S., Kaus A., Klauer B., Knöller K., Koschorreck M., Krauss M., Kunz J.V., Kurz M.J., Liess M., Mages M., Müller C., Muschket M., Musolf A., Norf H., Pöhlein F., Reiber L., Risse-Buhl U., Schramm K.-W., Schmitt-Jansen M., Schmitz M., Strachauer U., von Tümpling W., Weber N., Wild R., Wolf C., Brauns M.	Science of the Total Environment	769				144324	2021	7.963	10.1016/j.scitotenv.2020.144324	Hybrid	Changing Earth

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217	The erosive power of the Malvinas Current: Influence of bottom currents on morpho-sedimentary features along the northern Argentine margin (SW Atlantic Ocean)	Wilckens H., Miramontes E., Schwenk T., Artana C., Zhang W., Piola A.R., Baques M., Provost C., Hernández-Molina F.J., Felgendreher M., Spieß V., Kasten S.	Marine Geology	439				106539	2021	3.548	10.1016/j.margeo.2021.106539	Closed	Changing Earth
218	From participatory to inclusive climate services for enhancing societal uptake	Williams, D. S., Jacob, D.	Climate Services	24					2021	5.656	10.1016/j.climser.2021.100266	gold	Changing Earth
219	Changing readiness to mitigate SARS-CoV-2 steered long-term epidemic and social trajectories	Wirtz K.	Scientific Reports	11	1			13919	2021	4.379	10.1038/s41598-021-93248-y	Gold	Changing Earth
220	The importance of regional climate and land use information for flood regulation ecosystem services modelling	Wübbelmann T., Bender S., Burkhard B.	Landscape Online	88		1	16		2021	Scopus	10.3097/LO.202188	Gold	Changing Earth
221	Evolution of the Arabian sea upwelling from the last millennium to the future as simulated by earth systemmodels	Yi X., Hünicke B., Zorita E.	Climate	9	5			72	2021	Scopus	10.3390/cli9050072	Gold	Changing Earth
222	Turbulent and wave kinetic energy budgets in the airflow over wind-generated surface waves	Yousefi K., Veron F., Buckley M.P.	Journal of Fluid Mechanics	920				A33	2021	3.627	10.1017/jfm.2021.377	Closed	Changing Earth
223	Patterns of CO2 concentration and inorganic carbon limitation of phytoplankton biomass in agriculturally eutrophic lakes	Zagarese H.E., Sagrario M.D.L.Á.G., Wolf-Gladrow D., Nöges P., Nöges T., Kangur K., Matsuzaki S.-I.S., Kohzu A., Vanni M.J., Özkundakci D., Echaniz S.A., Vignatti A., Grosman F., Sanzano P., Van Dam B., Knoll L.B.	Water Research	190				116715	2021	11.236	10.1016/j.watres.2020.116715	Closed	Changing Earth
224	Variations and characteristics of carbonaceous substances emitted from a heavy fuel oil ship engine under different operating loads	Zhang F., Chen Y., Su P., Cui M., Han Y., Matthias V., Wang G.	Environmental Pollution	284				117388	2021	8.071	10.1016/j.envpol.2021.117388	Closed	Changing Earth
225	Atmospheric deposition, seasonal variation, and long-range transport of organophosphate esters on Yongxing Island, South China Sea	Zhang L, Xu W, Mi W, Yan W, Guo T, Zhou F, et al.	Science of The Total Environment	806				150673	2021	7.963	10.1016/j.scitotenv.2021.150673	Closed	Changing Earth
226	Importance of salinity-induced stratification on flocculation in tidal estuaries	Zhang Y., Ren J., Zhang W., Wu J.	Journal of Hydrology	596				126063	2021	5.722	10.1016/j.jhydrol.2021.126063	Closed	Changing Earth
227	Quantifying Importance of Macrobenthos for Benthic–Pelagic Coupling in a Temperate Coastal Shelf Sea	Zhang, W., Neumann, A., Daewel, U., Wirtz, K., van Beusekom, J.E.E., Eisele, A., Ma, M., Schrum, C.	JGR Oceans	126	10			e2020JC016995	2021	3.405	10.1029/2020JC016995	Hybrid / Deal	Changing Earth

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228	Soil moisture-atmosphere feedbacks mitigate declining water availability in drylands	Zhou S., Williams A.P., Lintner B.R., Berg A.M., Zhang Y., Keenan T.F., Cook B.I., Hagemann S., Seneviratne S.I., Gentile P.	Nature Climate Change	11	1	38	44		2021	25.290	10.1038/s41558-020-00945-z	Green	Changing Earth