

Anja Weidner

List of Publications by Year in descending order

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#	ARTICLE	IF	CITATIONS
1	Tailoring Nonmetallic Inclusions in 42CrMo4 as a Preparative Tool for Active and Reactive Steel Melt Filtration. <i>Advanced Engineering Materials</i> , 2022, 24, 2100640.	1.6	8
2	Manufacture of carbon-bonded alumina based on a lactose-tannin binder system via slip casting. <i>Ceramics International</i> , 2022, 48, 148-156.	2.3	9
3	Deformation behaviour of TWIP steels: Constitutive modelling informed by local and integral experimental methods used in concert. <i>Materials Characterization</i> , 2022, 184, 111667.	1.9	9
4	Deformation Lenses in a Bonding Zone of High-Alloyed Steel Laminates Manufactured by Cold Roll Bonding. <i>Metals</i> , 2022, 12, 590.	1.0	0
5	Microstructural evolution of the bonding zone in TRIP-TWIP laminate produced by accumulative roll bonding. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2022, 840, 142866.	2.6	5
6	High-Temperature Ternary Oxide Phases in Tantalum/Niobium-Alumina Composite Materials. <i>Advanced Engineering Materials</i> , 2022, 24, .	1.6	6
7	High-Temperature Compressive Behavior of Refractory Alumina-Niobium Composite Material. <i>Advanced Engineering Materials</i> , 2022, 24, .	1.6	8
8	Coarse-Grained Refractory Composite Castables Based on Alumina and Niobium. <i>Advanced Engineering Materials</i> , 2022, 24, .	1.6	7
9	Novel method for in situ damage monitoring during ultrasonic fatigue testing by the advanced acoustic emission technique. <i>International Journal of Fatigue</i> , 2021, 142, 105918.	2.8	18
10	Ultrafine-grained CrMnNi steels: Lueders phenomenon and texture inheritance. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2021, 799, 140197.	2.6	9
11	Fatigue of carburised CrNiMo steel: Testing and modelling concept. <i>Fatigue and Fracture of Engineering Materials and Structures</i> , 2021, 44, 788-804.	1.7	5
12	The role of grain size in static and cyclic deformation behaviour of a laser reversion annealed metastable austenitic steel. <i>Fatigue and Fracture of Engineering Materials and Structures</i> , 2021, 44, 43-62.	1.7	5
13	Review on Strain Localization Phenomena Studied by High-Resolution Digital Image Correlation. <i>Advanced Engineering Materials</i> , 2021, 23, 2001409.	1.6	19
14	Impact of high temperature on the compression behavior of carbon-bonded alumina filters with functionalized coatings. <i>Ceramics International</i> , 2021, 47, 3920-3927.	2.3	5
15	Review on Strain Localization Phenomena Studied by High-Resolution Digital Image Correlation. <i>Advanced Engineering Materials</i> , 2021, 23, 2170011.	1.6	13
16	In situ characterization of the functional degradation of a $\langle \text{Fe-Mn-Al-Ni} \rangle$-orientated Fe-Mn-Al-Ni single crystal under compression using acoustic emission measurements. <i>Acta Materialia</i> , 2021, 220, 117333.	3.8	10
17	Acoustic emission measurements on metastable austenitic steel oligocrystals. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2021, 827, 142066.	2.6	4
18	Direct tuning of the microstructural and mechanical properties of high-alloy austenitic steel by electron beam melting. <i>Additive Manufacturing</i> , 2021, 47, 102253.	1.7	1

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19	The fatigue life of 42CrMo4 steel in the range of HCF to VHCF at elevated temperatures up to 773 K. International Journal of Fatigue, 2021, 152, 106437.	2.8	3
20	Very High Cycle Fatigue Investigations on the Fatigue Strength of Additive Manufactured and Conventionally Wrought Inconel 718 at 873 K. Metals, 2021, 11, 1682.	1.0	9
21	Synthesis of Niobium-Alumina Composite Aggregates and Their Application in Coarse-Grained Refractory Ceramic-Metal Castables. Materials, 2021, 14, 6453.	1.3	11
22	Effect of Filter Functional Coating on Detrimental Nonmetallic Inclusions in 42CrMo4 Steel and Its Resulting Mechanical Properties. Advanced Engineering Materials, 2020, 22, 1900540.	1.6	8
23	Influence of the local degree of deformation on the temperature dependent fatigue behaviour of a ferritic-pearlitic steel. Fatigue and Fracture of Engineering Materials and Structures, 2020, 43, 2786-2799.	1.7	0
24	Ultrasonic fatigue testing of cast steel G42CrMo4 at elevated temperatures. Fatigue and Fracture of Engineering Materials and Structures, 2020, 43, 2455-2475.	1.7	11
25	On the formation of ridges and burnished debris along internal fatigue crack propagation in 42CrMo4 steel. Fatigue and Fracture of Engineering Materials and Structures, 2020, 43, 1567-1582.	1.7	6
26	Microstructural and mechanical characterization of high-alloy quenching and partitioning TRIP steel manufactured by electron beam melting. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2020, 794, 139684.	2.6	9
27	Deformation Processes in TRIP/TWIP Steels. Springer Series in Materials Science, 2020, , .	0.4	6
28	Scanning Electron Microscopy and Complementary In Situ Characterization Techniques for Characterization of Deformation and Damage Processes. Springer Series in Materials Science, 2020, , 485-527.	0.4	1
29	Prospects of Complementary In Situ Techniques. Springer Series in Materials Science, 2020, , 365-384.	0.4	0
30	Plastic Deformation and Strain Localizations. Springer Series in Materials Science, 2020, , 7-45.	0.4	0
31	In Situ Techniques for Characterization of Strain Localizations and Time Sequence of Deformation Processes. Springer Series in Materials Science, 2020, , 99-203.	0.4	0
32	Case Studies on Localized Deformation Processes in High-Alloy Fe-16Cr-6Mn-xNi-0.05C Cast Steels. Springer Series in Materials Science, 2020, , 245-364.	0.4	0
33	Object of Investigations- High-Alloy Fe-16Cr-6Mn-xNi-0.05C Cast Steels with TRIP/TWIP Effect. Springer Series in Materials Science, 2020, , 205-244.	0.4	0
34	Advanced High-Strength Steels. Springer Series in Materials Science, 2020, , 71-98.	0.4	2
35	Martensitic Phase Transformation. Springer Series in Materials Science, 2020, , 47-69.	0.4	0
36	Martensite formation during tensile deformation of high-alloy TRIP steel after quenching and partitioning route investigated by digital image correlation. Materialia, 2019, 8, 100498.	1.3	13

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37	Evaluation of very high cycle fatigue zones in 42CrMo4 steel with plate-like alumina inclusions. International Journal of Fatigue, 2019, 126, 258-269.	2.8	13
38	Laminated TRIP/TWIP Steel Composites Produced by Roll Bonding. Metals, 2019, 9, 195.	1.0	8
39	Strain Hardening of Phases in High-Alloy CrMnNi Steel as a Consequence of Pre-Deformation Studied by Nanoindentation. Advanced Engineering Materials, 2019, 21, 1800801.	1.6	7
40	Mechanical High-Temperature Properties and Damage Behavior of Coarse-Grained Alumina Refractory Metal Composites. Materials, 2019, 12, 3927.	1.3	13
41	Characterization of Nonmetallic Inclusions in 18CrNiMo7-6. Metallurgical and Materials Transactions B: Process Metallurgy and Materials Processing Science, 2019, 50, 337-356.	1.0	7
42	Influence of particle and short-fibre reinforcement on the very high cycle fatigue behaviour of aluminium matrix composites. International Journal of Fatigue, 2018, 113, 299-310.	2.8	9
43	Fatigue behavior of an ultrafine-grained metastable CrMnNi steel tested under total strain control. International Journal of Fatigue, 2018, 106, 143-152.	2.8	19
44	A Novel Approach for Monitoring Plastic Flow Localization during In-Situ Sem Testing of Small-Scale Samples. Experimental Techniques, 2018, 42, 177-189.	0.9	2
45	Very high cycle fatigue behaviour of 42CrMo4 steel with plate-like alumina inclusions. Procedia Structural Integrity, 2018, 13, 2071-2076.	0.3	2
46	Influence of ceramic particles and fibre reinforcement in metal matrix composites on the VHCF behaviour. Part II: Stochastic modelling and statistical inference. , 2018, , 319-342.		0
47	Cluster Detection of Non-Metallic Inclusions in 42CrMo4 Steel. Steel Research International, 2018, 89, 1800216.	1.0	11
48	Study of Deformation Phenomena in TRIP/TWIP Steels by Acoustic Emission and Scanning Electron Microscopy. Physics of Metals and Metallography, 2018, 119, 388-395.	0.3	14
49	Fatigue life of additively manufactured Ti-6Al-4V in the very high cycle fatigue regime. International Journal of Fatigue, 2017, 94, 236-245.	2.8	321
50	Fatigue behaviour of 16Mo3 steel at elevated temperatures under uniaxial as well as biaxial-planar loading. Fatigue and Fracture of Engineering Materials and Structures, 2017, 40, 909-923.	1.7	6
51	Impact of Nanoengineered Surfaces of Carbon-Bonded Alumina Filters on Steel Cleanliness. Advanced Engineering Materials, 2017, 19, 1700153.	1.6	13
52	Effect of Crucible Material for Ingot Casting on Detrimental Non-Metallic Inclusions and the Resulting Mechanical Properties of 18CrNiMo7-6 Steel. Advanced Engineering Materials, 2017, 19, 1700199.	1.6	14
53	Isothermal and thermo-mechanical fatigue behavior of 16Mo3 steel coated with high-velocity oxy-fuel sprayed nickel-base alloy under uniaxial as well as biaxial-planar loading. Journal of Materials Research, 2017, 32, 4411-4423.	1.2	7
54	Cyclic Degradation Behavior of $\langle 001 \rangle$ -Oriented Fe-Mn-Al-Ni Single Crystals in Tension. Shape Memory and Superelasticity, 2017, 3, 335-346.	1.1	22

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55	Crack initiation in the very high cycle fatigue regime of nitrated 42CrMo4 steel. Journal of Materials Research, 2017, 32, 4305-4316.	1.2	13
56	Electron Beam Welding of Cold Rolled High-Alloy TRIP/TWIP Steel Sheets. Steel Research International, 2016, 87, 436-444.	1.0	13
57	Microstructure of Non-Metallic Inclusions Identified in Cast Steel 42CrMo4 after Metal Melt Filtration by Novel Foam Filters. Steel Research International, 2016, 87, 1038-1053.	1.0	12
58	Decomposition and Precipitation Process During Thermo-mechanical Fatigue of Duplex Stainless Steel. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2016, 47, 2112-2124.	1.1	6
59	Microstructural changes during deformation of AISI 300 grade austenitic stainless steels: Impact of chemical heterogeneity. Procedia Structural Integrity, 2016, 2, 2299-2306.	0.3	23
60	Small-scale specimen testing for fatigue life assessment of service-exposed industrial gas turbine blades. International Journal of Fatigue, 2016, 92, 262-271.	2.8	48
61	Influence of non-metallic inclusions on fatigue life in the very high cycle fatigue regime. International Journal of Fatigue, 2016, 84, 40-52.	2.8	75
62	Cyclic degradation in bamboo-like Fe-Mn-Al-Ni shape memory alloys – The role of grain orientation. Scripta Materialia, 2016, 114, 156-160.	2.6	61
63	Small Field-of-view single-shot EPI-DWI of the prostate: Evaluation of spatially-tailored two-dimensional radiofrequency excitation pulses. Zeitschrift Fur Medizinische Physik, 2016, 26, 168-176.	0.6	32
64	Functionally Graded High-Alloy CrMnNi TRIP Steel Produced by Local Heat Treatment Using High-Energy Electron Beam. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2016, 47, 123-138.	1.1	2
65	Investigation of Phase Transformations in High-Alloy Austenitic TRIP Steel Under High Pressure (up to 11.0 GPa). Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2016, 47, 95-111.	1.1	27
66	The Portevin-Le Chatelier Effect in a Metastable Austenitic Stainless Steel. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2016, 47, 59-74.	1.1	31
67	Portevin Le Chatelier Effect in a Metastable Austenitic CrMnNi Steel. Materials Today: Proceedings, 2015, 2, S623-S626.	0.9	1
68	Texture evolution of cold rolled and reversion annealed metastable austenitic CrMnNi steels. IOP Conference Series: Materials Science and Engineering, 2015, 82, 012069.	0.3	4
69	Damage evolution in pseudoelastic polycrystalline Co-Ni-Ga high-temperature shape memory alloys. Journal of Alloys and Compounds, 2015, 633, 288-295.	2.8	38
70	Magnitude of shear of deformation-induced ϵ -martensite in high-alloy metastable steel. Materials Letters, 2015, 143, 155-158.	1.3	23
71	Formability of strong metastable Fe-15Cr-3Mn-3Ni-0.2C-0.1N austenitic TRIP/(TWIP) steel – A comparison of different base materials. Journal of Alloys and Compounds, 2015, 648, 783-793.	2.8	18
72	Deformation and strain hardening behavior of powder metallurgical TRIP steel under quasi-static biaxial-planar loading. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2015, 642, 317-329.	2.6	27

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73	Case studies on the application of high-resolution electron channelling contrast imaging " investigation of defects and defect arrangements in metallic materials. Philosophical Magazine, 2015, 95, 759-793.	0.7	28
74	Application of full-surface view in situ thermography measurements during ultrasonic fatigue of cast steel G42CrMo4. International Journal of Fatigue, 2015, 80, 459-467.	2.8	30
75	On the effect of gamma phase formation on the pseudoelastic performance of polycrystalline Fe-Mn-Al-Ni shape memory alloys. Scripta Materialia, 2015, 108, 23-26.	2.6	92
76	Isothermal and thermo-mechanical fatigue behavior of the nickel base superalloy Waspaloy [®] under uniaxial and biaxial-planar loading. International Journal of Fatigue, 2015, 81, 21-36.	2.8	31
77	Combination of Different In Situ Characterization Techniques and Scanning Electron Microscopy Investigations for a Comprehensive Description of the Tensile Deformation Behavior of a CrMnNi TRIP/TWIP Steel. Jom, 2015, 67, 1729-1747.	0.9	34
78	Fatigue crack initiation and damage mechanisms during ultrasonic fatigue testing of cast aluminium alloy AlSi7Mg. MATEC Web of Conferences, 2014, 12, 10005.	0.1	4
79	Deformation mechanisms in austenitic TRIP/TWIP steels at room and elevated temperature investigated by acoustic emission and scanning electron microscopy. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2014, 597, 183-193.	2.6	57
80	Nanoindentation measurements on deformation-induced ϵ -martensite in a metastable austenitic high-alloy CrMnNi steel. Philosophical Magazine Letters, 2014, 94, 522-530.	0.5	39
81	Scanning and transmission electron microscopy investigations of defect arrangements in a two-phase β -TiAl alloy. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2013, 571, 49-56.	2.6	7
82	Application of in situ thermography for evaluating the high-cycle and very high-cycle fatigue behaviour of cast aluminium alloy AlSi7Mg (T6). Ultrasonics, 2013, 53, 1441-1449.	2.1	38
83	Determination of stretch zone width and height by powerful 3D SEM imaging technology. Engineering Fracture Mechanics, 2013, 108, 294-304.	2.0	24
84	Kinetics of deformation processes in high-alloyed cast transformation-induced plasticity/twinning-induced plasticity steels determined by acoustic emission and scanning electron microscopy: Influence of austenite stability on deformation mechanisms. Acta Materialia, 2013, 61, 2434-2449.	3.8	91
85	Ultrafine grained high-alloyed austenitic TRIP steel. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2013, 571, 68-76.	2.6	45
86	Deformation and microstructure evolution of a duplex stainless steel under out-of-phase thermo-mechanical fatigue. Materials at High Temperatures, 2013, 30, 77-82.	0.5	6
87	In Situ Tensile Deformation of TRIP Steel / Mg-PSZ Composites. Materials Science Forum, 2013, 738-739, 77-81.	0.3	11
88	Effect of Filter Coating on the Quasi-Static and Cyclic Mechanical Properties of a G42CrMo4 Casting. Advanced Engineering Materials, 2013, 15, 1216-1223.	1.6	15
89	Investigation of the Damage Behavior of Cast Steel 42CrMo4 During Ultrasonic Fatigue by Combination of Thermography and Fractography. Advanced Engineering Materials, 2013, 15, 1251-1259.	1.6	13
90	SEM Investigation of High-Alloyed Austenitic Stainless Cast Steels With Varying Austenite Stability at Room Temperature and 100°C. Steel Research International, 2012, 83, 512-520.	1.0	50

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91	Study of cyclic strain localization and fatigue crack initiation using FIB technique. International Journal of Fatigue, 2012, 39, 44-53.	2.8	77
92	Micromechanical modelling of the cyclic stress-strain behaviour of nickel polycrystals. International Journal of Fatigue, 2012, 40, 154-167.	2.8	10
93	Microstructure of austenitic stainless steels of various phase stabilities after cyclic and tensile deformation. International Journal of Materials Research, 2011, 102, 1374-1377.	0.1	14
94	Stacking faults in high-alloyed metastable austenitic cast steel observed by electron channelling contrast imaging. Scripta Materialia, 2011, 64, 513-516.	2.6	89
95	Cyclic Deformation Behaviour of Three Austenitic Cast CrMnNi TRIP/TWIP Steels with Various Ni Content. Steel Research International, 2011, 82, 1040-1047.	1.0	55
96	Microstructure and Local Strain Fields in a High-Alloyed Austenitic Cast Steel and a Steel-Matrix Composite Material after in situ Tensile and Cyclic Deformation. Steel Research International, 2011, 82, 990-997.	1.0	16
97	Mechanical properties of metal matrix composites based on TRIP steel and ZrO ₂ ceramic foams. Procedia Engineering, 2011, 10, 548-555.	1.2	6
98	Stability of austenitic 316L steel against martensite formation during cyclic straining. Procedia Engineering, 2011, 10, 1279-1284.	1.2	39
99	Observation of stacking faults in a scanning electron microscope by electron channelling contrast imaging. International Journal of Materials Research, 2011, 102, 3-5.	0.1	17
100	Application of FIB technique to study of early fatigue damage in polycrystals. Journal of Physics: Conference Series, 2010, 240, 012058.	0.3	0
101	Simulation numérique du comportement cyclique de polycristaux de nickel. Revue De Metallurgie, 2010, 107, 9-14.	0.3	0
102	AFM study of surface relief evolution in 316L steel fatigued at low and high temperatures. Procedia Engineering, 2010, 2, 1625-1633.	1.2	15
103	In-situ characterization of the microstructure evolution during cyclic deformation of novel cast TRIP steel. Procedia Engineering, 2010, 2, 1961-1971.	1.2	36
104	Effect of austenite stability on the low cycle fatigue behavior and microstructure of high alloyed metastable austenitic cast TRIPsteels. Procedia Engineering, 2010, 2, 2085-2094.	1.2	66
105	Fatigue damage in copper polycrystals subjected to ultrahigh-cycle fatigue below the PSB threshold. International Journal of Fatigue, 2010, 32, 872-878.	2.8	74
106	Cyclic slip activity of PSBs in bulk and surface grains. International Journal of Fatigue, 2010, 32, 851-855.	2.8	8
107	Extrusions and intrusions in fatigued metals. Part 2. AFM and EBSD study of the early growth of extrusions and intrusions in 316L steel fatigued at room temperature. Philosophical Magazine, 2009, 89, 1337-1372.	0.7	77
108	Low cycle fatigue behavior and microstructure of a high alloyed metastable austenitic cast TRIP-steel. , 2009, , .		4

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109	Persistent Slip Bands. Materialpruefung/Materials Testing, 2009, 51, 526-531.	0.8	4
110	The Half-Cycle Slip Activity of Persistent Slip Bands in Polycrystals. Materials Science Forum, 2008, 567-568, 123-127.	0.3	2
111	Formation of slip steps and growth of extrusions within persistent slip bands in cyclically deformed polycrystals. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2008, 479, 181-190.	2.6	27
112	Half-cycle slip activity of persistent slip bands at different stages of fatigue life of polycrystalline nickel. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2008, 492, 118-127.	2.6	35
113	Slip activity of persistent slip bands in polycrystalline nickel. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2006, 435-436, 540-546.	2.6	51
114	Overstraining effects on the crack-opening displacement of microstructurally short cracks. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2005, 390, 414-422.	2.6	9
115	Crack opening displacement and propagation rate of microstructurally short cracks. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2003, 357, 264-269.	2.6	13
116	Shear Banding and Texture Development in Cold-Rolled $\hat{\pm}$ -Brass. Scripta Materialia, 1998, 38, 851-856.	2.6	28
117	Orientation Changes due to Shear Banding in $\hat{\pm}$ -Brass. Materials Science Forum, 1998, 273-275, 299-304.	0.3	1
118	X-ray substructure analysis in cold-rolled titanium. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 1997, 234-236, 814-817.	2.6	3
119	Experimental Evaluation of the Cyclic Slip Irreversibility Factor. Key Engineering Materials, 0, 465, 223-226.	0.4	14
120	Role of Impurities and PSBs on Microcracking of Polycrystalline Copper at Very High Numbers of Cycles. Key Engineering Materials, 0, 465, 29-34.	0.4	8
121	Microstructure Evolution and Phase Transformation in a Novel High-Alloyed TRIP Steel Observed during $\hat{\pm}$ -in-Situ $\hat{\pm}$; Tensile and Cyclic Deformation. Key Engineering Materials, 0, 465, 350-353.	0.4	4
122	Kinetics of Deformation Processes in a High-Alloy Cast TWIP Steel Determined by Acoustic Emission and Scanning Electron Microscopy. Key Engineering Materials, 0, 592-593, 489-492.	0.4	1
123	Slip Activity of Persistent Slip Bands in early Stages of Fatigue Life of Austenitic 316L Steel. Key Engineering Materials, 0, 592-593, 785-788.	0.4	0
124	A Comparative Study on Infrared Thermography during Ultrasonic Fatigue Testing of Cast Steel 42CrMo4 and Cast Aluminium Alloy AlSi7Mg. Key Engineering Materials, 0, 592-593, 501-504.	0.4	1
125	Influence of Reinforcement Geometry on the Very High-Cycle Fatigue Behavior of Aluminium-Matrix-Composites. Materials Science Forum, 0, 825-826, 150-157.	0.3	3
126	Residual properties of carbonâ€bonded alumina foam filter coated with carbonâ€containing calcium aluminate after contact with steel melt. Advanced Engineering Materials, 0, , 2100642.	1.6	0

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127	Compression Behavior of Carbon-Bonded Alumina Spaghetti Filters at Room and High Temperatures. Advanced Engineering Materials, 0, , 2100613.	1.6	1