Joachim Mayer

List of Publications by Year
in descending order

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382 papers	10,599 citations	31976 53 h-index	53230 85 g-index
398 all docs	398 docs citations	398 times ranked	11526 citing authors

#	Article	IF	Citations
1	Mechanisms of austenite growth during intercritical annealing in medium manganese steels. Scripta Materialia, 2022, 206, 114228.	5.2	27
2	Phase formation and performance of solid state reactive sintered Ce_{0.8}Gd_{0.2}O_{2â^'Î´}â€“FeCo₂O₄ composites. Journal of Materials Chemistry A, 2022, 10, 2412-2420.	10.3	7
3	Mechanical properties of cold sintered ZnO investigated by nanoindentation and micro-pillar testing. Journal of the European Ceramic Society, 2022, 42, 512-524.	5.7	16
4	Adjustment of chemical composition with dissimilar filler wire in 1.4301 austenitic stainless steel to influence residual stress in laser beam welds. Journal of Advanced Joining Processes, 2022, 5, 100081.	2.7	5
5	Tuning the ceria interfaces inside the dual phase oxygen transport membranes. Acta Materialia, 2022, 226, 117603.	7.9	3
6	Operando transmission electron microscopy of battery cycling: thickness dependent breaking of TiO₂ coating on Si/SiO₂ nanoparticles. Chemical Communications, 2022, 58, 3130-3133.	4.1	2
7	A Study on Early Stages of White Etching Crack Formation under Full Lubrication Conditions. Lubricants, 2022, 10, 24.	2.9	9
8	Cation-Exchange Method Enables Uniform Iridium Oxide Nanospheres for Oxygen Evolution Reaction. ACS Applied Nano Materials, 2022, 5, 4062-4071.	5.0	7
9	Cutting-edge nano-LED technology. Journal of Applied Physics, 2022, 131, .	2.5	15
10	Simulation of the Fatigue Crack Initiation in SAE 52100 Martensitic Hardened Bearing Steel during Rolling Contact. Lubricants, 2022, 10, 62.	2.9	11
11	White etching bands formation mechanisms due to rolling contact fatigue. Acta Materialia, 2022, 232, 117932.	7.9	18
12	Proximity-induced superconductivity in (Bi1â^'xSbx)2Te3 topological-insulator nanowires. Communications Materials, 2022, 3, .	6.9	10
13	Progress on Emerging Ferroelectric Materials for Energy Harvesting, Storage and Conversion. Advanced Energy Materials, 2022, 12, .	19.5	45
14	The in situ generated emerging phase inside dual phase oxygen transport membranes. Acta Materialia, 2022, 234, 118034.	7.9	3
15	Process Signaturesâ€“Knowledge-based approach towards function-oriented manufacturing. Procedia CIRP, 2022, 108, 624-629.	1.9	5
16	Residual Stress Reduction with the LTT Effect in Low Carbon Manganese-Steel through Chemical Composition Manipulation Using Dissimilar Filler Material in Laser Beam Welding. Metals, 2022, 12, 911.	2.3	2
17	Formation of White Etching Cracks under electrical current flow - Influence of load, slip and polarity. Wear, 2022, 504-505, 204394.	3.1	6
18	Progress on Emerging Ferroelectric Materials for Energy Harvesting, Storage and Conversion (Adv.) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50	19.5	3

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19	DNA introduces an independent temperature responsiveness to thermosensitive microgels and enables switchable plasmon coupling as well as controlled uptake and release. Nanoscale, 2021, 13, 2875-2882.	5.6	4
20	Enhancing the high temperature oxidation behavior of Cr₂AlC coatings by reducing grain boundary nanoporosity. Materials Research Letters, 2021, 9, 127-133.	8.7	13
21	Combined near-ambient pressure photoelectron spectroscopy and temporal analysis of products study of CH4 oxidation on Pd/Î³-Al2O3 catalysts. Catalysis Today, 2021, 360, 444-453.	4.4	4
22	In Situ Observation of Pointâ€Defectâ€Induced Unitâ€Cellâ€Wise Energy Storage Pathway in Antiferroelectric PbZrO₃. Advanced Functional Materials, 2021, 31, 2008609.	14.9	18
23	Conditioning nano-LEDs in arrays by laser-micro-annealing: The key to their performance improvement. Applied Physics Letters, 2021, 118, .	3.3	16
24	Composition/Performance Evaluation of Lean NO_x Trap Catalysts for Coupling with SCR Technology. ChemCatChem, 2021, 13, 1787-1805.	3.7	12
25	Atomic Structure and Electron Magnetic Circular Dichroism of Individual Rock Salt Structure Antiphase Boundaries in Spinel Ferrites. Advanced Functional Materials, 2021, 31, 2008306.	14.9	15
26	Multiple polarization orders in individual twinned colloidal nanocrystals of centrosymmetric HfO2. Matter, 2021, 4, 986-1000.	10.0	15
27	Nickel Structures as a Template Strategy to Create Shaped Iridium Electrocatalysts for Electrochemical Water Splitting. ACS Applied Materials & Interfaces, 2021, 13, 13576-13585.	8.0	7
28	Elucidating the Influence of the d-Band Center on the Synthesis of Isobutanol. Catalysts, 2021, 11, 406.	3.5	1
29	Introduction to a special issue on Frontiers of Aberration Corrected Electron Microscopy in honour of Wolfgang Baumeister, Colin Humphreys, John Spence and Knut Urban on the occasion of their 75th, 80th, 75th and 80th birthdays. Ultramicroscopy, 2021, 231, 113290.	1.9	0
30	Turning Low-Nanoscale Intrinsic Silicon Highly Electron-Conductive by SiO2 Coating. ACS Applied Materials & Interfaces, 2021, 13, 20479-20488.	8.0	7
31	Microstructural insights into the coercivity enhancement of grain-boundary-diffusion-processed Tb-treated Nd-Fe-B sintered magnets beyond the core-shell formation mechanism. Journal of Alloys and Compounds, 2021, 864, 158915.	5.5	17
32	Segregationâ€controlled densification and grain growth in rare earthâ€doped Y₂O₃. Journal of the American Ceramic Society, 2021, 104, 4946-4959.	3.8	12
33	STEM investigations of the influence of copper on alumina scale detachment during in-situ wetting experiments of Al-7Si-0.3Mg alloy with 95Sn-5Cu filler metal. International Journal of Materials Research, 2021, 112, 415-421.	0.3	0
34	Correlating Nanocrystalline Structure with Electronic Properties in 2D Platinum Diselenide. Advanced Functional Materials, 2021, 31, 2102929.	14.9	17
35	A study on the initiation processes of white etching cracks (WECs) in AISI 52100 bearing steel. Wear, 2021, 477, 203864.	3.1	15
36	Photocatalytic-Fenton Process under Simulated Solar Radiation Promoted by a Suitable Catalyst Selection. Catalysts, 2021, 11, 885.	3.5	2

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37	Controlled twinning and martensitic transformation in metastable AISI D3 (X210Cr12) steel by sequential deep rolling and liquid nitrogen cooling. Materials Today Communications, 2021, 28, 102484.	1.9	1
38	Ferroelectric phase-transition frustration near a tricritical composition point. Nature Communications, 2021, 12, 5322.	12.8	18
39	Graphite paradox in Baikal geyserite paleovalley, Russia. American Mineralogist, 2021, 106, 1622-1639.	1.9	2
40	Co-deformation between the metallic matrix and intermetallic phases in a creep-resistant Mg-3.68Al-3.8Ca alloy. Materials and Design, 2021, 210, 110113.	7.0	9
41	Thermal stability of CrAlN/AlCrN nanolaminate coating deposited by hybrid dcMS/HPPMS after heat treatment with continuous-wave laser. Applied Surface Science, 2021, 569, 151024.	6.1	2
42	Structural analyses of a CrN/AlN nanolaminate hard coating after nanoscratch test. Thin Solid Films, 2021, 738, 138964.	1.8	1
43	Temperature dependent partitioning mechanisms and its associated microstructural evolution in a CMnSiAl quenching and partitioning (Q&P) steel. Materials Today Communications, 2021, 29, 102918.	1.9	1
44	Measuring Diffusion Coefficients of the Ceria Phase in a Dual-Phase Oxygen Permeation Membrane Using a Combined Polarization - Kelvin Probe Force Microscopy Method. ECS Meeting Abstracts, 2021, MA2021-02, 1853-1853.	0.0	0
45	Microstructural and chemical surface and rim zone changes of ferriteâ€perlite 42CrMo4 steel after electrochemical machining. Materialwissenschaft Und Werkstofftechnik, 2021, 52, 1214-1229.	0.9	0
46	Migration Kinetics of Surface Ions in Oxygenâ€Deficient Perovskite During Topotactic Transitions. Small, 2021, 17, e2104356.	10.0	6
47	Structural Phase Transition and In-Situ Energy Storage Pathway in Nonpolar Materials: A Review. Materials, 2021, 14, 7854.	2.9	15
48	Migration Kinetics of Surface Ions in Oxygenâ€Deficient Perovskite During Topotactic Transitions (Small 51/2021). Small, 2021, 17, .	10.0	0
49	Measurement of polarization effects in dual-phase ceria-based oxygen permeation membranes using Kelvin probe force microscopy. Beilstein Journal of Nanotechnology, 2021, 12, 1380-1391.	2.8	1
50	Model-based design and synthesis of ferrocene containing microgels. Polymer Chemistry, 2020, 11, 315-325.	3.9	18
51	Preferred selenium incorporation and unexpected interlayer bonding in the layered structure of Sb₂Te_{3â”’} _x Se _x . Zeitschrift Fur Naturforschung - Section B Journal of Chemical Sciences, 2020, 75, 41-50.	0.7	2
52	The effect of cryolite on grinding of stainless steel. Tribology International, 2020, 143, 106021.	5.9	1
53	Effect of threading strain from the interface between P-GaN and an annealed ITO transparent conducting layer to InGaN/GaN multiple quantum wells. Vacuum, 2020, 172, 109035.	3.5	2
54	Ethanol Dehydrogenation: A Reaction Path Study by Means of Temporal Analysis of Products. Catalysts, 2020, 10, 1151.	3.5	11

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55	Laser micro annealing conditioning for the suppression of statistical scatter in freestanding Sb2Te3 nanowire resistance. FlatChem, 2020, 21, 100164.	5.6	18
56	Combined Î²-carbide precipitation and recovery enables ultra-high strength and ductility in light-weight steels. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2020, 795, 139928.	5.6	18
57	Antiphase Boundaries Constitute Fast Cation Diffusion Paths in SrTiO₃ Memristive Devices. Advanced Functional Materials, 2020, 30, 2004118.	14.9	19
58	Direction observation of the grain boundary segregation in molybdenum substituted lanthanum tungstate membranes. Nanoscale, 2020, 12, 17841-17848.	5.6	6
59	Operando Transmission Electron Microscopy Study of All-Solid-State Battery Interface: Redistribution of Lithium among Interconnected Particles. ACS Applied Energy Materials, 2020, 3, 5101-5106.	5.1	14
60	Influence of direct electric current on wetting behavior during brazing. Frontiers of Mechanical Engineering, 2020, 15, 496-503.	4.3	1
61	Influence of process chains with thermal, mechanical and thermo-mechanical impact on the surface modifications of a grind-strengthened 42CrMo4 steel. Procedia CIRP, 2020, 87, 426-431.	1.9	4
62	A Nanoscale Study of Thermally Grown Chromia on High-Cr Ferritic Steels and Associated Oxidation Mechanisms. Journal of the Electrochemical Society, 2020, 167, 061502.	2.9	12
63	Energy Storage: An Unconventional Transient Phase with Cycloidal Order of Polarization in Energyâ€Storage Antiferroelectric PbZrO₃ (Adv. Mater. 9/2020). Advanced Materials, 2020, 32, 2070069.	21.0	2
64	Electron microscopic characterization of surface zones thermo-chemically modified by electrical discharge machining. Journal of Materials Processing Technology, 2020, 280, 116596.	6.3	10
65	An Unconventional Transient Phase with Cycloidal Order of Polarization in Energyâ€Storage Antiferroelectric PbZrO₃. Advanced Materials, 2020, 32, e1907208.	21.0	54
66	YBa₂Cu₃O_{7â”x} films with Ba₂Y(Nb,Ta)O₆ nanoinclusions for high-field applications. Superconductor Science and Technology, 2020, 33, 044010.	3.5	15
67	Morphology-controllable synthesis of LiCoPO4 and its influence on electrochemical performance for high-voltage lithium ion batteries. Journal of Power Sources, 2020, 450, 227726.	7.8	19
68	Nano-LED induced chemical reactions for structuring processes. Nanoscale Advances, 2020, 2, 5421-5427.	4.6	9
69	Novel self-epitaxy for inducing superconductivity in the topological insulator <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:mo>(</mml:mo><mml:msub><mml:mi>Bi</mml:mi></mml:msub><mml:m Physical Review Materials, 2020, 4, .	2.4	17
70	Local crystallographic shear structures in a[201] extended mixed dislocations of SrTiO₃ unraveled by atomic-scale imaging using transmission electron microscopy and spectroscopy. Faraday Discussions, 2019, 213, 245-258.	3.2	10
71	Effect of Nb Addition on Oxidation Mechanisms of High Cr Ferritic Steel in Arâ€“H2â€“H2O. Oxidation of Metals, 2019, 92, 471-491.	2.1	15
72	Size-Tailored Biocompatible FePt Nanoparticles for Dual T₁/T₂ Magnetic Resonance Imaging Contrast Enhancement. Langmuir, 2019, 35, 10424-10434.	3.5	13

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73	Impact of Bonding on the Stacking Defects in Layered Chalcogenides. Advanced Functional Materials, 2019, 29, 1902332.	14.9	21
74	Investigation of the Liâ€“Co antisite exchange in Fe-substituted LiCoPO4 cathode for high-voltage lithium ion batteries. Energy Storage Materials, 2019, 22, 138-146.	18.0	15
75	Thermally induced changes in microstructure and reactivity of biogenic and fossil fuel particles. Applied Energy, 2019, 254, 113607.	10.1	8
76	Processing-induced secondary phase formation in Mo-substituted lanthanum tungstate membranes. Acta Materialia, 2019, 180, 35-41.	7.9	5
77	Metallic filamentary conduction in valence change-based resistive switching devices: the case of TaO_x thin film with x â‰¤ 1. Nanoscale, 2019, 11, 16978-16990.	5.6	16
78	Oxygen diffusion in amorphous and partially crystalline gallium oxide. Physical Chemistry Chemical Physics, 2019, 21, 4268-4275.	2.8	10
79	Cargo shuttling by electrochemical switching of coreâ€“shell microgels obtained by a facile one-shot polymerization. Chemical Science, 2019, 10, 1844-1856.	7.4	38
80	Nanoscale X-ray imaging of ageing in automotive lithium ion battery cells. Journal of Power Sources, 2019, 433, 126631.	7.8	42
81	Crystal structure investigation of La5.4W1â^'yMoyO12â^'Î´ for gas separation by high-resolution transmission electron microscopy. Scientific Reports, 2019, 9, 3274.	3.3	6
82	Study of the distribution of a straight CuO nanorod structure inserted in Al-doped ZnO layers for deposition on a flexible substrate. Japanese Journal of Applied Physics, 2019, 58, 055004.	1.5	1
83	Introduction to a special issue on Frontiers of Aberration Corrected Electron Microscopy in honour of Christian Colliex, Archie Howie and Hannes Lichte on the occasion of their 75th, 85th and 75th birthdays. Ultramicroscopy, 2019, 203, 1.	1.9	1
84	Nanoscale measurement of giant saturation magnetization in Î±â€³-Fe16N2 by electron energy-loss magnetic chiral dichroism. Ultramicroscopy, 2019, 203, 37-43.	1.9	9
85	The carbonization of polyacrylonitrile-derived electrospun carbon nanofibers studied by in situ transmission electron microscopy. RSC Advances, 2019, 9, 6267-6277.	3.6	35
86	The Impact of Fe Addition on the Electronic Conductivity of Gadolinium Doped Ceria. ECS Journal of Solid State Science and Technology, 2019, 8, P41-P50.	1.8	6
87	Engineering antiphase boundaries in epitaxial SrTiO3 to achieve forming free memristive devices. APL Materials, 2019, 7, .	5.1	13
88	On the role of the metal oxide/reactive electrode interface during the forming procedure of valence change ReRAM devices. Nanoscale, 2019, 11, 18201-18208.	5.6	26
89	Electronic Structure Shift of Deeply Nanoscale Silicon by <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline" overflow="scroll"><mml:msub><mml:mrow><mml:mi>Si</mml:mi><mml:mi mathvariant="normal">O</mml:mi></mml:mrow><mml:mn>2</mml:mn></mml:msub></mml:math> versus <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline" overflow="scroll"><mml:msub><mml:mi>Si</mml:mi><mml:mn>3</mml:mn></mml:msub><mml:msub><mml:mi	3.8	10
90	On the origin of vibrational properties of calcium manganate based thermoelectric compounds. Nano Energy, 2018, 47, 451-462.	16.0	19

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91	Electrically controlled transformation of memristive titanates into mesoporous titanium oxides via incongruent sublimation. Scientific Reports, 2018, 8, 3774.	3.3	12
92	Understanding electron magnetic circular dichroism in a transition potential approach. Physical Review B, 2018, 97, .	3.2	3
93	Atomic scale imaging of magnetic circular dichroism by achromatic electron microscopy. Nature Materials, 2018, 17, 221-225.	27.5	60
94	Efficient and accurate two-scale FE-FFT-based prediction of the effective material behavior of elasto-viscoplastic polycrystals. Computational Mechanics, 2018, 61, 751-764.	4.0	49
95	Efficient Multiscale FE-FFT-Based Modeling and Simulation of Macroscopic Deformation Processes with Non-linear Heterogeneous Microstructures. Lecture Notes in Applied and Computational Mechanics, 2018, , 129-146.	2.2	3
96	Grind hardening: Correlations between surface modifications and applied internal loads. Procedia CIRP, 2018, 71, 341-347.	1.9	6
97	Dielectric Properties and Ion Transport in Layered MoS₂ Grown by Vapor-Phase Sulfurization for Potential Applications in Nanoelectronics. ACS Applied Nano Materials, 2018, 1, 6197-6204.	5.0	25
98	Intrinsic ultrasmall nanoscale silicon turns n-/p-type with SiO₂/Si₃N₄-coating. Beilstein Journal of Nanotechnology, 2018, 9, 2255-2264.	2.8	15
99	Plasma Polymerization of TEMPO Yields Coatings Containing Stable Nitroxide Radicals for Controlling Interactions with Prokaryotic and Eukaryotic Cells. ACS Applied Nano Materials, 2018, 1, 6587-6595.	5.0	12
100	Nanospectroscopy of Infrared Phonon Resonance Enables Local Quantification of Electronic Properties in Doped SrTiO₃ Ceramics. Advanced Functional Materials, 2018, 28, 1802834.	14.9	32
101	Formation of white etching areas in SAE 52100 bearing steel under rolling contact fatigue â€“ Influence of diffusible hydrogen. Wear, 2018, 414-415, 352-365.	3.1	36
102	Analysis of the effects of different carbon coating strategies on structure and electrochemical behavior of LiCoPO4 material as a high-voltage cathode electrode for lithium ion batteries. Electrochimica Acta, 2018, 279, 108-117.	5.2	19
103	In situ investigation of production processes in a large chamber scanning electron microscope. Ultramicroscopy, 2018, 193, 151-158.	1.9	6
104	Interfaces between Model Co-W-C Alloys with Various Carbon Contents and Tungsten Carbide. Materials, 2018, 11, 404.	2.9	10
105	On Oxidation Resistance Mechanisms at 1273 K of Tungsten-Based Alloys Containing Chromium and Yttria. Metals, 2018, 8, 488.	2.3	16
106	Controlled Crystal Growth of Indium Selenide, In₂Se₃, and the Crystal Structures of Î±-In₂Se₃. Inorganic Chemistry, 2018, 57, 11775-11781.	4.0	97
107	Oxygen Exchange Processes between Oxide Memristive Devices and Water Molecules. Advanced Materials, 2018, 30, e1800957.	21.0	57
108	Effect of cation ratio and order on magnetic circular dichroism in the double perovskite Sr2Fe1+Re1-O6. Ultramicroscopy, 2018, 193, 137-142.	1.9	11

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109	Tetragonal fcc-Fe induced by Î³ -carbide precipitates: Atomic scale insights from correlative electron microscopy, atom probe tomography, and density functional theory. Physical Review Materials, 2018, 2, .	2.4	14
110	Crystal Structure Investigation of Ferritic 73Fe24Cr2Si0.8Mn0.1Ni Steel for Multi-purpose Structural Material Applications. International Journal of Technology, 2018, 9, 78.	0.8	2
111	Effects of dynamic diffraction conditions on magnetic parameter determination in a double perovskite Sr2FeMoO6 using electron energy-loss magnetic chiral dichroism. Ultramicroscopy, 2017, 176, 212-217.	1.9	9
112	Electron microscopy investigations of microstructural alterations due to classical Rolling Contact Fatigue (RCF) in martensitic AISI 52100 bearing steel. International Journal of Fatigue, 2017, 98, 142-154.	5.7	77
113	Unexpected Geâ€“Ge Contacts in the Twoâ€Dimensional Ge₄Se₃Te Phase and Analysis of Their Chemical Cause with the Density of Energy (DOE) Function. Angewandte Chemie - International Edition, 2017, 56, 10204-10208.	13.8	64
114	Smart tungsten alloys as a material for the first wall of a future fusion power plant. Nuclear Fusion, 2017, 57, 066020.	3.5	40
115	Facile Screening of Various Micellar Morphologies by Blending Miktoarm Stars and Diblock Copolymers. ACS Macro Letters, 2017, 6, 711-715.	4.8	23
116	Nanometre-scale 3D defects in Cr2AlC thin films. Scientific Reports, 2017, 7, 984.	3.3	5
117	Novel hardmetals with nano-grain reinforced binder for hard-facings. International Journal of Refractory Metals and Hard Materials, 2017, 67, 98-104.	3.8	6
118	Properties of Crâ€“Câ€“Al2O3 Deposits Prepared on a Cu Substrate Using Cr3+-Based Plating Baths. Powder Metallurgy and Metal Ceramics, 2017, 55, 596-602.	0.8	3
119	Microstructural changes in White Etching Cracks (WECs) and their relationship with those in Dark Etching Region (DER) and White Etching Bands (WEBs) due to Rolling Contact Fatigue (RCF). International Journal of Fatigue, 2017, 100, 148-158.	5.7	72
120	Nanosized Conducting Filaments Formed by Atomic-Scale Defects in Redox-Based Resistive Switching Memories. Chemistry of Materials, 2017, 29, 3164-3173.	6.7	70
121	Hydrophobic superparamagnetic FePt nanoparticles in hydrophilic poly(N-vinylcaprolactam) microgels: a new multifunctional hybrid system. Journal of Materials Chemistry B, 2017, 5, 1284-1292.	5.8	33
122	Introduction to a special issue on Frontiers of Aberration Corrected Electron Microscopy in honour of Robert Sinclair and Nestor J. Zaluzec on the occasion of their 70th and 65th birthdays. Ultramicroscopy, 2017, 176, 1.	1.9	0
123	Experimental and Theoretical Understanding of Nitrogen-Doping-Induced Strong Metalâ€“Support Interactions in Pd/TiO₂ Catalysts for Nitrobenzene Hydrogenation. ACS Catalysis, 2017, 7, 1197-1206.	11.2	138
124	Nanostructure of pseudomonocrystalline graphite studied by nanoimaging of electrical properties in combination with other techniques. Carbon, 2017, 114, 724-730.	10.3	2
125	Plastic deformation behavior of nanostructured CrN/AlN multilayer coatings deposited by hybrid dcMS/HPPMS. Surface and Coatings Technology, 2017, 332, 253-261.	4.8	41
126	Formation of the reaction zone between tin-copper brazing fillers and aluminum-silicon-magnesium alloys: Experiments and thermodynamic analysis. Materialwissenschaft Und Werkstofftechnik, 2017, 48, 1241-1248.	0.9	1

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127	Modelling approach towards tailored grain structure in laser processing. Materialwissenschaft Und Werkstofftechnik, 2017, 48, 1226-1234.	0.9	1
128	Microstructural analysis of germanium modified tin-copper brazing filler metals for transient liquid phase bonding of aluminium. Materialwissenschaft Und Werkstofftechnik, 2017, 48, 1257-1263.	0.9	1
129	Investigation of the effect of rapidly solidified braze ribbons on the microstructure of brazed joints. IOP Conference Series: Materials Science and Engineering, 2017, 181, 012006.	0.6	0
130	Atomic resolution elemental mapping using energy-filtered imaging scanning transmission electron microscopy with chromatic aberration correction. Ultramicroscopy, 2017, 181, 173-177.	1.9	16
131	Confirmation of tensile residual stress reduction in electron beam welding using low transformation temperature materials (LTT) as localized metallurgical injection â€“ Part 1: Metallographic analysis. Materialpruefung/Materials Testing, 2017, 59, 148-154.	2.2	9
132	In Situ and Cryo (S)TEM Imaging of Internal Microgel Architectures. Microscopy and Microanalysis, 2016, 22, 70-71.	0.4	0
133	Study of subsurface initiation mechanism for white etching crack formation. Materials Science and Technology, 2016, 32, 1170-1178.	1.6	19
134	Effect of Zr Content on the Morphology and Emissivity of Surface Oxide Scales on FeCrAlY Alloys. Advanced Engineering Materials, 2016, 18, 711-720.	3.5	7
135	Atomic Level Characterization of Novel Hardening Mechanisms in High-Mn-Steels. Microscopy and Microanalysis, 2016, 22, 1928-1929.	0.4	1
136	Deposition and characterization of B4C/CeO2 multilayers at 6.x nm extreme ultraviolet wavelengths. Journal of Applied Physics, 2016, 119, .	2.5	2
137	Homogeneity and variation of donor doping in Verneuil-grown SrTiO3:Nb single crystals. Scientific Reports, 2016, 6, 32250.	3.3	29
138	Ab initio-guided design of twinning-induced plasticity steels. MRS Bulletin, 2016, 41, 320-325.	3.5	25
139	Nanoionic Resistive Switching Memories: On the Physical Nature of the Dynamic Reset Process. Advanced Electronic Materials, 2016, 2, 1500233.	5.1	141
140	Conditions and formation mechanism of carbon phases in late quarternary geyzerites and travertines of Olâ€™khon area and Olâ€™khon Island (Baikal rift zone). Petrology, 2016, 24, 35-48.	0.9	4
141	A model structure for interfacial phase change memories: Epitaxial trigonal Ge1Sb2Te4. Journal of Alloys and Compounds, 2016, 679, 285-292.	5.5	44
142	Electron Microscopic Characterization of Mechanically Modified Surface Layers of Deep Rolled Steel. Procedia CIRP, 2016, 45, 367-370.	1.9	5
143	On the plastic deformation of chromium-based nitride hard coatings deposited by hybrid dcMS/HPPMS: A fundamental study using nanoscratch test. Surface and Coatings Technology, 2016, 308, 298-306.	4.8	16
144	3D Structures of Responsive Nanocompartmentalized Microgels. Nano Letters, 2016, 16, 7295-7301.	9.1	90

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145	Exploring the detection limits of infrared near-field microscopy regarding small buried structures and pushing them by exploiting superlens-related effects. Optics Express, 2016, 24, 4431.	3.4	11
146	Hydrogen separation through tailored dual phase membranes with nominal composition BaCe0.8Eu0.2O3-Î´:Ce0.8Y0.2O2-Î´ at intermediate temperatures. Scientific Reports, 2016, 6, 34773.	3.3	46
147	Surface Atomic Structure and Growth Mechanism of Monodisperse {1 0 0}-Faceted Strontium Titanate Zirconate Nanocubes. Chemistry of Materials, 2016, 28, 650-656.	6.7	20
148	Resistive Switching Memory: Nanoionic Resistive Switching Memories: On the Physical Nature of the Dynamic Reset Process (Adv. Electron. Mater. 1/2016). Advanced Electronic Materials, 2016, 2, .	5.1	2
149	Electron microscopy analysis of structural changes within white etching areas. Materials Science and Technology, 2016, 32, 1683-1693.	1.6	35
150	Nano-diffraction in STEM and fluctuation electron microscopy of phase-change material. Acta Crystallographica Section A: Foundations and Advances, 2015, 71, s286-s286.	0.1	0
151	Imaging of phase change materials below a capping layer using correlative infrared near-field microscopy and electron microscopy. Applied Physics Letters, 2015, 107, .	3.3	18
152	Microstructure, phase transformation and hardness of nanometric Cr-Al multilayer coatings. Advances in Mechanical Engineering, 2015, 7, 168781401558972.	1.6	6
153	Atomic Structure of Antiphase Nanodomains in Feâ€Doped SrTiO₃ Films. Advanced Functional Materials, 2015, 25, 6369-6373.	14.9	18
154	Shape without Structure: An Intriguing Formation Mechanism in the Solvothermal Synthesis of the Phaseâ€Change Material Sb₂Te₃. Angewandte Chemie - International Edition, 2015, 54, 6632-6636.	13.8	18
155	Avalancheâ€Dischargeâ€Induced Electrical Forming in Tantalum Oxideâ€Based Metalâ€“Insulatorâ€“Metal Structures. Advanced Functional Materials, 2015, 25, 7154-7162.	14.9	28
156	Transmission Electron Microscopy Characterization of High-Temperatur Oxidation of Fe-20Cr-5Al Alloy Prepared by Focused Ion Beam Technique. Makara Journal of Technology, 2015, 19, 85.	0.3	0
157	Functional properties of La0.99X0.01Nb0.99Al0.01O4â^'Î´ and La0.99X0.01Nb0.99Ti0.01O4â^'Î´ proton conductors where X is an alkaline earth cation. Journal of the European Ceramic Society, 2015, 35, 1239-1253.	5.7	16
158	Phase homogeneity analysis of La 0.99 Sr 0.01 Nb 0.99 Al 0.01 O 4â^'Î´ and La 0.99 Ca 0.01 Nb 0.99 Ti 0.01 O 4â^'Î´ proton conductors by high-resolution STEM and EELS. Journal of the European Ceramic Society, 2015, 35, 1517-1525.	5.7	6
159	Influence of wetting and thermophysical properties of diamond-like carbon coatings on the frictional behavior in automobile gearboxes under elasto-hydrodynamic lubrication. Surface and Coatings Technology, 2015, 284, 290-301.	4.8	35
160	Temperature effect on deformation mechanisms and mechanical properties of a high manganese C+N alloyed austenitic stainless steel. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2015, 642, 71-83.	5.6	86
161	Atomic structure and chemistry of dislocation cores at low-angle tilt grain boundary in SrTiO3 bicrystals. Acta Materialia, 2015, 89, 344-351.	7.9	58
162	Introduction to a Special Issue on Frontiers of Aberration Corrected Electron Microscopy dedicated to Harald Rose on the occasion of his 80th Birthday. Ultramicroscopy, 2015, 151, 1.	1.9	0

#	Article	IF	Citations
163	Tailoring the structure and gas permeation properties of silica membranes via binary metal oxides doping. RSC Advances, 2015, 5, 82717-82725.	3.6	9
164	Spectromicroscopic insights for rational design of redox-based memristive devices. Nature Communications, 2015, 6, 8610.	12.8	100
165	Determination of the Young's modulus of the epicuticle of the smooth adhesive organs of Carausius morosus by tensile testing. Journal of Experimental Biology, 2014, 217, 3677-87.	1.7	17
166	Transmission electron microscopy investigation of the effect of Si alloying on the thermal stability of amorphous alumina thin films deposited by filtered cathodic arc deposition. Surface and Coatings Technology, 2014, 257, 338-347.	4.8	5
167	Influence of the Ba²⁺/Sr²⁺content and oxygen vacancies on the stability of cubic Ba_xSr_{1â^'x}Co_{0.75}Fe_{0.25}O_{3â^'Î´}. Physical Chemistry Chemical Physics, 2014, 16, 1333-1338.	2.8	7
168	Elemental mapping in achromatic atomic-resolution energy-filtered transmission electron microscopy. Ultramicroscopy, 2014, 147, 98-105.	1.9	24
169	Synthesis and Internal Structure of Finite-Size DNAâ€“Gold Nanoparticle Assemblies. Journal of Physical Chemistry C, 2014, 118, 7174-7184.	3.1	14
170	Hardness and Wear Behaviour of Semi-Solid Cast A390 Alloy Reinforced with Al2O3 and TiO2 Nanoparticles. Arabian Journal for Science and Engineering, 2014, 39, 5171-5184.	1.1	28
171	EBSD-Analysis of Flexure Hinges Surface Integrity Evolution via Wire-EDM Main and Trim Cut Technologies. Procedia CIRP, 2014, 13, 237-242.	1.9	11
172	Study of the Ultrathin Ferroelectric BaTiO3 Film using Scanning Transmission Electron Microscopy. Microscopy and Microanalysis, 2014, 20, 138-139.	0.4	0
173	Studies of Local Structural Distortions in Strained Ultrathin BaTiO₃ Films Using Scanning Transmission Electron Microscopy. Microscopy and Microanalysis, 2014, 20, 740-747.	0.4	8
174	EBSD-Analysis of Microstructural Changes Below Wire-EDMed Surfaces. Microscopy and Microanalysis, 2014, 20, 1470-1471.	0.4	0
175	Microstructure and electrochemical corrosion behavior of Crâ€“Niâ€“Fe alloy deposits electroplated in the presence of trivalent Cr ions. Thin Solid Films, 2013, 544, 69-73.	1.8	14
176	Nanosegregation of ternary Crâ€“Niâ€“Fe alloy deposits electrodeposited from a Cr3+-based bath. Materials Letters, 2013, 93, 107-110.	2.6	5
177	Fabrication of ultrathin films of Ta2O5 by a solâ€“gel method. Thin Solid Films, 2013, 527, 354-357.	1.8	19
178	AFM investigations on the influence of CO2 exposure on Ba0.5Sr0.5Co0.8Fe0.2O3â€“Î´. Journal of Solid State Electrochemistry, 2013, 17, 2897-2907.	2.5	10
179	Evidence for multifilamentary valence changes in resistive switching SrTiO3 devices detected by transmission X-ray microscopy. APL Materials, 2013, 1, .	5.1	33
180	Achromatic Elemental Mapping Beyond the Nanoscale in the Transmission Electron Microscope. Physical Review Letters, 2013, 110, 185507.	7.8	34

#	Article	IF	Citations
181	Spontaneous Assembly of Miktoarm Stars into Vesicular Interpolyelectrolyte Complexes. Macromolecular Rapid Communications, 2013, 34, 855-860.	3.9	48
182	Transmission electron microscope (TEM) study of annealed gamma alumina coatings for cutting tools and of gamma alumina-coated cutting tools after the use in cutting tests. Materialwissenschaft Und Werkstofftechnik, 2013, 44, 716-722.	0.9	0
183	Measurement of crystal growth velocity in a melt-quenched phase-change material. Nature Communications, 2013, 4, 2371.	12.8	176
184	TEM Investigation of Deformation Mechanisms in FeMnCrCN TWIP Steel. Microscopy and Microanalysis, 2013, 19, 1736-1737.	0.4	2
185	Composition modifications and heat treatment procedures for increasing the emissivity of alumina surface scales on FeCrAl alloys. Materials at High Temperatures, 2012, 29, 249-256.	1.0	6
186	On the high temperature stability of Î³-Al2O3/Ti0.33Al0.67N coated WCâ€“Co cutting inserts. International Journal of Materials Research, 2012, 103, 1509-1516.	0.3	0
187	Studies of the contribution of alternating electromagnetic ï¬elds toward material fatigue in 100Cr6. Industrial Lubrication and Tribology, 2012, 64, 247-252.	1.3	5
188	Growth and thermal stability of (V,Al)₂C_x thin films. Journal of Materials Research, 2012, 27, 2511-2519.	2.6	14
189	Scaling Potential of Local Redox Processes in Memristive SrTiO $_{3}$ Thin-Film Devices. Proceedings of the IEEE, 2012, 100, 1979-1990.	21.3	64
190	Synthesis, microstructure, and mechanical properties of YPd3B thin films. Journal of Alloys and Compounds, 2012, 540, 75-80.	5.5	7
191	Elastic properties of face-centred cubic Feâ€“Mnâ€“C studied by nanoindentation and ab initio calculations. Acta Materialia, 2012, 60, 6025-6032.	7.9	43
192	Influence of Al2O3 nano-dispersions on microstructure features and mechanical properties of cast and T6 heat-treated Al Si hypoeutectic Alloys. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2012, 556, 76-87.	5.6	65
193	Guiding Block Copolymers into Sequenced Patterns via Inverted Terrace Formation. Macromolecules, 2012, 45, 2494-2501.	4.8	15
194	Chemical characterisation of scale formation of high manganese steels (Fe-Mn23-C0.6) on the sub-micrometre scale: a challenge for EPMA. IOP Conference Series: Materials Science and Engineering, 2012, 32, 012001.	0.6	2
195	Surface â€œClickâ€•Reaction of DNA followed by Directed Metalization for the Construction of Contactable Conducting Nanostructures. Angewandte Chemie - International Edition, 2012, 51, 7586-7588.	13.8	26
196	Lightâ€Mediated Heterogeneous Cross Dehydrogenative Coupling Reactions: Metal Oxides as Efficient, Recyclable, Photoredox Catalysts in Cï£¿C Bondâ€Forming Reactions. Chemistry - A European Journal, 2012, 18, 3478-3481.	3.3	213
197	Characterization and Prediction of Flow Behavior in High-Manganese Twinning Induced Plasticity Steels: Part II. Jerky Flow and Instantaneous Strain Rate. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2012, 43, 1705-1723.	2.2	40
198	Size-Selective, Stabilizer-Free, Hydrogenolytic Synthesis of Iridium Nanoparticles Supported on Carbon Nanotubes. Chemistry of Materials, 2011, 23, 2008-2010.	6.7	45

#	Article	IF	Citations
199	Conversion of Self-Assembled Monolayers into Nanocrystalline Graphene: Structure and Electric Transport. ACS Nano, 2011, 5, 3896-3904.	14.6	97
200	Oxidation of Cr2AlC coatings in the temperature range of 1230 to 1410Â°C. Surface and Coatings Technology, 2011, 206, 591-598.	4.8	80
201	Interfacial structure of V2AlC thin films deposited on <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" altimg="si1.gif" overflow="scroll"><mml:mrow><mml:mo		

#	Article	IF	Citations
217	Formation Sequence of Lead Platinum Interfacial Phases in Chemical Solution Deposition Derived Pb(Zr_{1â^'x}Ti_x)O₃Thin Films. Chemistry of Materials, 2010, 22, 6209-6211.	6.7	10
218	A kinetic study of the decomposition of the cubic perovskite-type oxide BaxSr1â^'xCo0.8Fe0.2O3â^'Î´ (BSCF) (x = 0.1 and 0.5). Physical Chemistry Chemical Physics, 2010, 12, 10320.	2.8	157
219	Improved charge transport through Si based multiple quantum wells with substoichiometric SiOx barrier layers. Journal of Applied Physics, 2009, 106, 083706.	2.5	6
220	One Nanometer Thin Carbon Nanosheets with Tunable Conductivity and Stiffness. Advanced Materials, 2009, 21, 1233-1237.	21.0	201
221	Controlled Nucleation of DNA Metallization. Angewandte Chemie - International Edition, 2009, 48, 219-223.	13.8	116
222	Quantised double layer charging of monolayer-protected clusters in a room temperature ionic liquid. Electrochimica Acta, 2009, 54, 5006-5010.	5.2	19
223	Compositionâ€“constitutionâ€“morphology relationship of Al2O3 thin films deposited by plasma assisted chemical vapor deposition. Surface and Coatings Technology, 2009, 204, 215-221.	4.8	21
224	Influence of Si and N additions on structure and phase stability of Ge₂Sb₂Te₅thin films. Journal of Physics Condensed Matter, 2009, 21, 435501.	1.8	16
225	Novel carbon nanosheets as support for ultrahigh-resolution structural analysis of nanoparticles. Ultramicroscopy, 2008, 108, 885-892.	1.9	51
226	Modification of alumina scale formation on FeCrAlY alloys by minor additions of group IVa elements. Journal of Materials Science, 2008, 43, 4550-4560.	3.7	38
227	Application of EPMA and analytical TEM to brazed metal-supported catalytic converters. Mikrochimica Acta, 2008, 161, 405-411.	5.0	2
228	Oxide scale formation on Al containing Niâ€“Cr-based high temperature alloys during application as flame tube material in recirculation oil burners. Materials and Corrosion - Werkstoffe Und Korrosion, 2008, 59, 380-388.	1.5	16
229	Chemical strengthening of a dental lithium disilicate glassâ€“ceramic material. Journal of Biomedical Materials Research - Part A, 2008, 87A, 582-587.	4.0	28
230	The effect of yttrium incorporation on the oxidation resistance of Crâ€“Alâ€“N coatings. Surface and Coatings Technology, 2008, 202, 5870-5875.	4.8	90
231	Strength degradation mechanisms in h-BN/NiAl coated sapphire fibres with a reactive Hf or Y interlayer. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2008, 491, 207-213.	5.6	5
232	Resonant and phonon-assisted tunneling transport through silicon quantum dots embedded in SiO2. Applied Physics Letters, 2008, 93, 132111.	3.3	10
233	Chain-like assembly of gold nanoparticles on artificial DNA templates via â€˜click chemistryâ€™. Chemical Communications, 2008, , 169-171.	4.1	116
234	Confinement and transport in silicon based quantum structures. Conference Record of the IEEE Photovoltaic Specialists Conference, 2008, , .	0.0	1

#	Article	IF	Citations
235	Energy filtering TEM analysis of nanoelectronic device structures: Fast and efficient way to assess chemical microstructures. Materials Science and Technology, 2008, 24, 667-674.	1.6	8
236	Current-induced magnetization dynamics in single and double layer magnetic nanopillars grown by molecular beam epitaxy. Journal Physics D: Applied Physics, 2008, 41, 164011.	2.8	3
237	Fully epitaxial Fe(110)/MgO(111)/Fe(110) magnetic tunnel junctions: Growth, transport, and spin filtering properties. Applied Physics Letters, 2008, 93, 083512.	3.3	11
238	Service conditions and their influence on the oxide scale formation on metallic high temperature alloys for the application in innovative combustion processes. , 2008, , 415-427.		0
239	Microstructure analysis of thin Cr2AlC films deposited at low temperature by magnetron sputtering. , 2008, , 533-534.		0
240	TEM Sample Preparation and FIB-Induced Damage. MRS Bulletin, 2007, 32, 400-407.	3.5	723
241	Electronic band gap of Si/SiO2 quantum wells: Comparison ofab initiocalculations and photoluminescence measurements. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2007, 25, 1500-1504.	2.1	19
242	Probing fatigue in ferroelectric thin films with subnanometer depth resolution. Applied Physics Letters, 2007, 91, 072905.	3.3	12
243	Non-Destructive Analysis of Engineering Components in the Large-Chamber Scanning Electron Microscope. Microscopy and Microanalysis, 2007, 13, .	0.4	1
244	The crack evolution on the atomistic scale during the pyrolysis of carbon fibre reinforced plastics to carbon/carbon composites. Composites Part A: Applied Science and Manufacturing, 2007, 38, 2237-2244.	7.6	13
245	Oxidation behaviour of selected wrought Ni-base high temperature alloys when used as flame tube material in modern blue flame oil burners. Corrosion Science, 2007, 49, 3866-3879.	6.6	21
246	The STM view of the initial stages of polycrystalline Ag film formation. New Journal of Physics, 2007, 9, 74-74.	2.9	47
247	Individual Multiwall Carbon Nanotubes Spectroscopy by Scanning Transmission X-ray Microscopy. Nano Letters, 2007, 7, 2435-2440.	9.1	51
248	Focused-ion-beam milling based nanostencil mask fabrication for spin transfer torque studies. Journal of Applied Physics, 2007, 101, 063920.	2.5	5
249	Surface Conditioning of a Cold-Rolled Dual-Phase Steel by Annealing in Nitriding Atmospheres Prior to Hot-Dip Galvanizing. Advanced Engineering Materials, 2007, 9, 274-279.	3.5	5
250	Low-Ion-Dose FIB Modification of Monomicellar Layers for the Creation of Highly Ordered Metal Nanodot Arrays. Small, 2007, 3, 1368-1373.	10.0	19
251	Elastic properties of Cr2AlC thin films probed by nanoindentation and ab initio molecular dynamics. Scripta Materialia, 2007, 57, 1137-1140.	5.2	82
252	cis-Pt Mediated Assembly of Gold Nanoparticles on DNA. Journal of Cluster Science, 2007, 18, 193-204.	3.3	13

#	Article	IF	Citations
253	Moderne TEM-Untersuchungen am Beispiel mikrolegierter StÃhle. Praktische Metallographie/Practical Metallography, 2007, 44, 155-171.	0.3	1
254	Novel Applications of a Focused Ion Beam Workstation for Specimen Preparation and Nanostructuring. Praktische Metallographie/Practical Metallography, 2007, 44, 244-247.	0.3	1
255	Evaluation of the Structure of Amorphous Tungsten Oxide W28O72 by the Combination of Electron-, X-Ray- and Neutron-Diffraction (Three-Beam Experiment). Zeitschrift Fur Naturforschung - Section A Journal of Physical Sciences, 2006, 61, 189-196.	1.5	1
256	Introduction: A Special Issue on Frontiers of Electron Microscopy in Materials Science. Microscopy and Microanalysis, 2006, 12, 441-441.	0.4	0
257	Effects of Thermal Annealing on the Structure of Ferroelectric Thin Films. Journal of the American Ceramic Society, 2006, 89, 1321-1325.	3.8	12
258	Wear characteristics of second-phase-reinforced solâ€“gel corundum abrasives. Acta Materialia, 2006, 54, 3605-3615.	7.9	37
259	Micronâ€”EDGE proceeding. Micron, 2006, 37, 375-376.	2.2	0
260	TEM and nanomechanical studies on tribological surface modifications formed on roller bearings under controlled lubrication conditions. Journal of Materials Science, 2006, 41, 4543-4553.	3.7	14
261	Frontiers of Electron Microscopy in Materials Science 2005. Journal of Materials Science, 2006, 41, 4377-4381.	3.7	0
262	A New Method to Examine Interfacial Reactions of a Multilayered System NiAlâ€“Hfâ€“hBN on a Sapphire Fibre. Mikrochimica Acta, 2006, 155, 257-262.	5.0	5
263	A new hard allotropic form of carbon: Dream or reality?. International Journal of Refractory Metals and Hard Materials, 2006, 24, 17-23.	3.8	25
264	Service conditions and their influence on oxide scale formation on metallic high temperature alloys for application in innovative combustion processes. Materials and Corrosion - Werkstoffe Und Korrosion, 2006, 57, 122-127.	1.5	6
265	Application of EDM Hole-Drilling Method to the Measurement of Residual Stress in Tool and Carbon Steels. Journal of Engineering Materials and Technology, Transactions of the ASME, 2006, 128, 468-475.	1.4	11
266	Nanomechanical and analytical investigations of tribological layers for wear protection in slow-running roller bearings. Philosophical Magazine, 2006, 86, 5477-5495.	1.6	2
267	Density inhomogeneity in ferroelectric thin films. Applied Physics Letters, 2006, 89, 052901.	3.3	6
268	Structure-induced magnetic anisotropy in the Fe(110)âˆ•Mo(110)âˆ•Al2O3(112Â¯0) system. Journal of Applied Physics, 2006, 99, 033904.	2.5	4
269	Structural investigations of Ptâˆ•TiOx electrode stacks for ferroelectric thin film devices. Journal of Applied Physics, 2006, 99, 114107.	2.5	17
270	Analysis of Local Structure, Chemistry and Bonding by Electron Energy Loss Spectroscopy. , 2006, , 219-232.		1

#	Article	IF	Citations
271	Arteriosclerotic aorta calcifications characterized by TEM and electron crystallography. Acta Crystallographica Section A: Foundations and Advances, 2006, 62, s186-s186.	0.3	1
272	EFTEM Analysis of FIB Sections: An Important Tool in Nanotechnology. Microscopy and Microanalysis, 2005, 11, .	0.4	1
273	Examination of Interfacial Reactions of a NiAl-Hf-hBN System on a Sapphire Fibre by a Combination of EPMA and FIB Specimen Preparation. Microscopy and Microanalysis, 2005, 11, .	0.4	1
274	Effects of Nb on the microstructure and corrosive property in the Alloy 690â€“SUS 304L weldment. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2005, 397, 229-238.	5.6	40
275	Novel ultra-coarse hardmetal grades with reinforced binder for mining and construction. International Journal of Refractory Metals and Hard Materials, 2005, 23, 225-232.	3.8	55
276	Quantitative Electron Diffraction Data of Amorphous Materials. Zeitschrift Fur Naturforschung - Section A Journal of Physical Sciences, 2005, 60, 459-468.	1.5	13
277	Effect of gas nitriding in flowing ammonia on the hot-dip galvanising of the Dual-Phase steel DP500. International Journal of Materials Research, 2005, 96, 233-241.	0.8	2
278	Depth Profile Analysis on the Nanometer Scale by a Combination of Electron Probe Microanalysis (EPMA) and Focused Ion Beam Specimen Preparation (FIB). Mikrochimica Acta, 2004, 145, 187-192.	5.0	7
279	Preparation of Nanosized Perovskite-type Oxides via Polyol Method. Zeitschrift Fur Anorganische Und Allgemeine Chemie, 2004, 630, 2083-2089.	1.2	32
280	TEM Investigations of Fine Niobium Precipitates in HSLA Steel. Steel Research International, 2004, 75, 753-758.	1.8	21
281	An interface clusters mixture model for the structure of amorphous silicon monoxide (SiO). Journal of Non-Crystalline Solids, 2003, 320, 255-280.	3.1	231
282	Preparation, structure, and electronic properties ofFe3O4films on theFe(110)/Mo(110)/Al2O3(112Â¯0)substrate. Physical Review B, 2003, 68, .	3.2	24
283	Microwave-Induced Crystallization of Polysilazane-Derived Silicon Carbonitride. International Journal of Materials Research, 2003, 94, 208-210.	0.8	5
284	Analysis of Local Strain in Aluminum Interconnects by Convergent Beam Electron Diffraction. Microscopy and Microanalysis, 2003, 9, 390-398.	0.4	2
285	Time dependence of Mg-incorporation in alumina scales on FeCrAl alloys studied by FIB-prepared TEM cross sections. Materials at High Temperatures, 2003, 20, 413-419.	1.0	16
286	Quantitative Analytical Transmission Electron Microscopy. Springer Series in Materials Science, 2003, , 119-187.	0.6	2
287	High-Temperature Oxidation of FeCrAl Alloys: The Effect of Mg Incorporation into the Alumina Scale. International Journal of Materials Research, 2003, 94, 180-187.	0.8	14
288	Time dependence of Mg-incorporation in alumina scales on FeCrAl alloys studied by FIB-prepared TEM cross sections. Materials at High Temperatures, 2003, 20, 413-419.	1.0	6

#	Article	IF	Citations
289	Nanoscale analysis by energy-filtering TEM. Advances in Imaging and Electron Physics, 2002, 123, 399-411.	0.2	4
290	Fragmentation, rings and coarsening: structure and transformations of nanocrystal aggregate networks on a liquid surface. Surface Science, 2002, 497, 100-112.	1.9	33
291	The morphology of silicon carbide in C/Câ€“SiC composites. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2002, 332, 146-152.	5.6	111
292	Quantitative EFTEM study of precursor-derived Siâ€“Bâ€“Câ€“N ceramics. Journal of the European Ceramic Society, 2002, 22, 1621-1629.	5.7	35
293	Structure of nanocrystalline anatase solved and refined from electron powder dataPresented at the microsymposium onElectron Crystallography of Small Molecules and Organic Materials, 19th European Crystallographic Meeting, Nancy, France, 25â€“31 August 2000.. Acta Crystallographica Section A: Foundations and Advances, 2002, 58, 308-315.	0.3	41
294	Micro-Analysis of the Contact Zone of Tribologically Loaded Second-Phase Reinforced Sol-Gel-Abrasives. CIRP Annals - Manufacturing Technology, 2002, 51, 245-250.	3.6	24
295	A new carbon modification: â€˜n-diamondâ€™ or face-centred cubic carbon?. Diamond and Related Materials, 2001, 10, 99-102.	3.9	52
296	The growth and structure of epitaxial niobium on sapphire. Thin Solid Films, 2001, 401, 7-34.	1.8	80
297	Precursor-derived Si-(B-)C-N ceramics: thermolysis, amorphous state and crystallization. Applied Organometallic Chemistry, 2001, 15, 777-793.	3.5	93
298	Auger depth profile analysis and EFTEM analysis of annealed Ti/Al-contacts on Si-doped GaN. Applied Surface Science, 2001, 179, 213-221.	6.1	7
299	Analysis of local strain in aluminium interconnects by energy filtered CBED. Ultramicroscopy, 2000, 81, 245-262.	1.9	82
300	The T-tubular network and its triads in the sole plate sarcoplasm of the motor end-plate of mammals. Journal of Muscle Research and Cell Motility, 2000, 21, 443-449.	2.0	18
301	Prospects and Limitations of Energy Filtering TEM in Spectrum Imaging Analysis. Microscopy and Microanalysis, 2000, 6, 1054-1055.	0.4	0
302	Electron Spectroscopic Imaging and Diffraction: Ideal Tools for the Characterization of Ceramic Materials. Microscopy and Microanalysis, 1999, 5, 788-789.	0.4	0
303	Quantitative thin film analysis by energy filtering transmission electron microscopy. Ultramicroscopy, 1999, 78, 207-219.	1.9	43
304	Using the Hough transform for HOLZ line identification in convergent beam electron diffraction. Journal of Microscopy, 1999, 194, 02-11.	1.8	32
305	Quantitative electron spectroscopic imaging studies of microelectronic metallization layers. Journal of Microscopy, 1999, 194, 71-78.	1.8	29
306	TEM investigations of the superdislocations and their interaction with particles in dispersion strengthened intermetallics. Intermetallics, 1999, 7, 423-436.	3.9	34

#	Article	IF	Citations
307	Theory of atomic defects and diffusion in ordered compounds, and application to B2-FeAl. Intermetallics, 1999, 7, 315-323.	3.9	72
308	Analysis of local strain in aluminum interconnects by convergent beam electron diffraction. , 1999, , .		0
309	Quantitative Mapping of Concentrations and Bonding States by Energy Filtering TEM. Materials Research Society Symposia Proceedings, 1999, 589, 279.	0.1	0
310	Measurement of Local Strain in Thin Aluminium Interconnects Using Convergent Beam Electron Diffraction (CBED). Materials Research Society Symposia Proceedings, 1999, 594, 489.	0.1	0
311	Optimization of TEm specimen preparation by double-sided ion beam thinning under low angles. Journal of Electron Microscopy, 1999, 48, 235-244.	0.9	38
312	Structure Analysis and Properties of Siâ€“Câ€“N Ceramics Derived from Polysilazanes. Physica Status Solidi A, 1998, 166, 269-296.	1.7	111
313	Determination of Bonding Charge Density in NiAl by Quantitative Convergent Beam Electron Diffraction. Physica Status Solidi A, 1998, 166, 367-379.	1.7	10
314	Estimation of Phosphorus and Sulphur Contents in Nuclear Constituents by Means of Image-EELS Analysis Using Ribosomes as Internal Standards. Micron, 1998, 29, 461-468.	2.2	3
315	High-Precision Measurement of Temperature Factors for NiAl by Convergent-Beam Electron Diffraction. Acta Crystallographica Section A: Foundations and Advances, 1998, 54, 147-157.	0.3	20
316	First electron spectroscopic imaging experiments on the new JEOL 2010 FEF. Journal of Electron Microscopy, 1998, 47, 283-291.	0.9	13
317	Formation and interface structure of TiC particles in dispersion-strengthened Cu alloys. Philosophical Magazine A: Physics of Condensed Matter, Structure, Defects and Mechanical Properties, 1998, 77, 1531-1554.	0.6	9
318	Atomic structure of epitaxial Nb-Al₂O₃interfaces II. Misfit dislocations. Philosophical Magazine A: Physics of Condensed Matter, Structure, Defects and Mechanical Properties, 1997, 75, 1357-1382.	0.6	77
319	Metallurgical analysis and RF losses in superconducting niobium thin film cavities. IEEE Transactions on Applied Superconductivity, 1997, 7, 1776-1780.	1.7	10
320	Atomic structure of epitaxial Nb-Al₂O₃interfaces I. Coherent regions. Philosophical Magazine A: Physics of Condensed Matter, Structure, Defects and Mechanical Properties, 1997, 75, 1329-1355.	0.6	82
321	Effective formation energies of atomic defects in D03î—¸Fe3Al: an ab-initio study. Intermetallics, 1997, 5, 597-600.	3.9	42
322	TEM-study of the interaction between superdislocations and dispersoids in a Ni3Al alloy. Scripta Materialia, 1997, 36, 341-345.	5.2	14
323	Quantitative analysis of electron spectroscopic imaging series. Micron, 1997, 28, 361-370.	2.2	55
324	On the meaning of effective formation energies, entropies and volumes for atomic defects in ordered compounds. Acta Materialia, 1997, 45, 2207-2211.	7.9	66

#	Article	IF	Citations
325	Interference experiments with energy filtered electrons. Ultramicroscopy, 1997, 69, 201-209.	1.9	37
326	Electron Spectroscopic Imaging (ESI): A new method to reveal the existence of nm-scale exsolution lamellae. European Journal of Mineralogy, 1997, 9, 1199-1206.	1.3	5
327	Identification of a new phase formed during the oxidation of Î³-tttanium aluminum. Scripta Materialia, 1996, 34, 707-711.	5.2	45
328	Interface characterization of nanosized B-doped Si3N4/SiC ceramics. Composites Part A: Applied Science and Manufacturing, 1996, 27, 717-721.	7.6	84
329	Low-Order Structure-Factor Amplitude and Sign Determination of an Unknown Structure AlmFe by Quantitative Convergent-Beam Electron Diffraction. Acta Crystallographica Section A: Foundations and Advances, 1996, 52, 923-936.	0.3	16
330	Mapping of ELNES on a nanometre scale by electron spectroscopic imaging. Journal of Microscopy, 1996, 183, 2-8.	1.8	41
331	Crystallization Behavior and Microstructure Evolution of (Al,Fe)2O3 Synthesized from Liquid Precursors. Journal of the American Ceramic Society, 1996, 79, 1745-1755.	3.8	45
332	Atomic Structure of the Interface between Epitaxial Niobium Films and Î±-Al₂O₃ Substrates. Materials Science Forum, 1996, 207-209, 241-244.	0.3	1
333	Silicon Nitride Based Ceramic Nanocomposites. Journal of the American Ceramic Society, 1996, 79, 585-590.	3.8	70
334	Polymer-derived Si-based bulk ceramics, part I: Preparation, processing and properties. Journal of the European Ceramic Society, 1995, 15, 703-715.	5.7	111
335	Concentrations of Atomic Defects in B2ï£¿Fe_xAl_{1â^'x}. An Abâ€initio Study. Physica Status Solidi (B): Basic Research, 1995, 191, 283-298.	1.5	133
336	Energy-filtered transmission electron microscopy of SimGen superlattices and Siî—¸Ge heterostructures I. Experimental results. Ultramicroscopy, 1995, 59, 33-45.	1.9	42
337	Polymer-derived Si-based bulk ceramics, part II: Microstructural characterisation by electron spectroscopic imaging. Journal of the European Ceramic Society, 1995, 15, 717-727.	5.7	34
338	Non quadratic RF losses in niobium sputter coated accelerating structures. IEEE Transactions on Applied Superconductivity, 1995, 5, 1107-1110.	1.7	10
339	Atomic structure of misfit dislocations in metalâ€ceramic interfaces. Philosophical Magazine A: Physics of Condensed Matter, Structure, Defects and Mechanical Properties, 1995, 71, 1219-1239.	0.6	60
340	â€œDesigning of Si3N4/SiC composite materialsâ€• Scripta Materialia, 1995, 6, 279-282.	0.5	14
341	Structure factor of amorphous germanium by quantitative electron diffraction. Journal of Non-Crystalline Solids, 1995, 192-193, 679-682.	3.1	6
342	Electron Spectroscopic Diffraction. Springer Series in Optical Sciences, 1995, , 291-345.	0.7	10

#	Article	IF	Citations
343	Electron spectroscopic imaging: detection and resolution limits, quantitative evaluation. Proceedings Annual Meeting Electron Microscopy Society of America, 1995, 53, 310-311.	0.0	0
344	Investigation of the Structure of Amorphous Substances by Means of Electron Diffraction. Zeitschrift Fur Naturforschung - Section A Journal of Physical Sciences, 1994, 49, 771-775.	1.5	7
345	Investigations of the chemistry and bonding at niobiumsapphire interfaces. Journal of Materials Research, 1994, 9, 2574-2583.	2.6	84
346	Detection limits in elemental distribution images produced by energy filtering TEM: case study of grain boundaries in Si3N4. Ultramicroscopy, 1994, 55, 101-112.	1.9	72
347	Determination of structure factors, lattice strains and accelerating voltage by energy-filtered convergent beam electron diffraction. Ultramicroscopy, 1994, 54, 15-30.	1.9	62
348	The niobium/sapphire interface: Structural studies by HREM. Scripta Metallurgica Et Materialia, 1994, 31, 1097-1102.	1.0	30
349	Measurement of Thermally-Induced Strains in Polycrystalline Al Thin Films on Si Using Convergent Beam Electron Diffraction. Materials Research Society Symposia Proceedings, 1994, 343, 615.	0.1	5
350	Investigation of Interfaces in Ceramics by Electron Spectroscopic Imaging. Materials Research Society Symposia Proceedings, 1994, 357, 237.	0.1	0
351	An HREM study of the ionic conductor strontium lithium Î²-alumina. The Philosophical Magazine: Physics of Condensed Matter B, Statistical Mechanics, Electronic, Optical and Magnetic Properties, 1994, 69, 643-654.	0.6	1
352	Hydroboration of polymethylvinylsilane â€" a novel route to silicon boron carbide ceramics. Journal of Materials Science, 1993, 28, 3931-3938.	3.7	35
353	Measurement of individual structure-factor phases with tenth-degree accuracy: the 00.2 reflection in BeO studied by electron and X-ray diffraction. Acta Crystallographica Section A: Foundations and Advances, 1993, 49, 422-429.	0.3	14
354	Characterization of the defect structure of polycrystalline Sr-Î²-alumina ceramics using high-resolution transmission electron microscopy. Journal of Materials Chemistry, 1993, 3, 675-678.	6.7	1
355	X-ray and electron diffraction investigations on the stable decagonal phase in Co â€" Ni â€" Al alloys. Zeitschrift Fur Kristallographie - Crystalline Materials, 1993, 205, 235-254.	0.8	0
356	X-ray and electron diffraction investigations on the stable decagonal phase in Coâ€"Niâ€"Al alloys. Zeitschrift Fur Kristallographie - Crystalline Materials, 1993, 205, 235-253.	0.8	13
357	Misfit Dislocations at Metal/Ceramics Interfaces. Materials Research Society Symposia Proceedings, 1993, 319, 3.	0.1	1
358	ProbenprÃparation fÃ¼r die Transmissionselektronenmikroskopie: VerlÃÃŸliche Methode fÃ¼r Querschnitte und brÃ¼chige Materialien/ Specimen Preparation for Transmission Electron Microscopy: Reliable Method for Cross-Sections and Brittle Materials. Praktische Metallographie/Practical Metallography, 1993, 30, 482-495.	0.3	170
359	Structure and defects of MBE grown NbAl2O3 interfaces. Acta Metallurgica Et Materialia, 1992, 40, S217-S225.	1.8	62
360	X-ray and electron diffraction investigations on the liquid-quenched Fe2Al5. Scripta Metallurgica Et Materialia, 1992, 26, 501-504.	1.0	29

#	Article	IF	Citations
361	Quantitative electron crystallography with omega energy filtering. Micron and Microscopica Acta, 1991, 22, 173-174.	0.2	4
362	Preparation, Structure and Electrical Properties of Polycrystalline Sr-Beta-Alumina Ceramics. Key Engineering Materials, 1991, 59-60, 181-190.	0.4	1
363	Interfaces in composites: Relations between structure and properties. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 1991, 9, 1511-1517.	2.1	4
364	High Resolution Electron Microscopy Studies of Interfaces Between Al203 Substrates and MBE Grown NB Films. Materials Research Society Symposia Proceedings, 1990, 209, 673.	0.1	1
365	Quantitative Studies on the Amorphization of Quasicrystals by Means of High Voltage Electron Microscopy. Physica Status Solidi A, 1990, 122, 79-86.	1.7	6
366	High-resolution electron microscopy studies of Nb/Al2O3 interfaces. Ultramicroscopy, 1990, 33, 51-61.	1.9	130
367	Electron microscopy studies of Nb-Al2O3 interfaces formed by molecular beam epitaxy. Surface and Coatings Technology, 1990, 43-44, 199-212.	4.8	17
368	Determination of the angles between the quasicrystal zone axes of the decagonal phase in Alâ€“Mn alloys. Journal of Materials Research, 1990, 5, 57-61.	2.6	13
369	Characterization of spray-pyrolized superconducting YBaCuO thin films on single-crystal MgO by transmission electron microscopy. Journal of Materials Research, 1990, 5, 1605-1611.	2.6	12
370	Single-crystal X-ray study of the decagonal phase of the system Alâ€“Mn. Acta Crystallographica Section B: Structural Science, 1989, 45, 355-359.	1.8	24
371	Electron diffraction patterns from the Alâ€“Mn decagonal phase. Philosophical Magazine Letters, 1989, 60, 261-267.	1.2	6
372	Intermetallic phase formation in aluminium and iron thin film systems. Thin Solid Films, 1988, 167, 203-216.	1.8	28
373	Structural relationships between the quasicrystalline and the amorphous state in alloys. Journal of the Less Common Metals, 1988, 145, 395-409.	0.8	1
374	Crystalline and quasicrystalline phases formed by interdiffusion in evaporated Alâ€“Mn thin films. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 1987, 5, 1733-1734.	2.1	19
375	Preparation of aluminium based icosahedral thin films by high-temperature vapour deposition. Scripta Metallurgica, 1987, 21, 1535-1540.	1.2	20
376	Electron-Diffraction Study on an Amorphous Al-V Alloy Produced by Electron Irradiation of Quasicrystalline Al-16 at-%V. Zeitschrift Fur Naturforschung - Section A Journal of Physical Sciences, 1987, 42, 113-119.	1.5	13
377	STUDIES ON APERIODIC CRYSTALS IN Al-Mn AND Al-V ALLOYS BY MEANS OF TRANSMISSION ELECTRON MICROSCOPY. Journal De Physique Colloque, 1986, 47, C3-465-C3-474.	0.2	12
378	Observation of Ni8Mo ordered phase in Ni-Mo alloys. Physica Status Solidi A, 1985, 90, 469-475.	1.7	22

#	Article	IF	Citations
379	Spinodal ordering in Ni4Mo. Acta Metallurgica, 1985, 33, 539-543.	2.1	26
380	Radiation-Induced Order-Disorder Transformations. Materials Science Forum, 1985, 3, 335-352.	0.3	2
381	The Effect of Trace Amounts of Mg in FeCrAl Alloys on the Microstructure of the Protective Alumina Surface Scales. , 0, , 271-278.		6
382	Microstructural Study of the Magnesium Alloy (Az31) Galvanostatically Etched for Different Periods Followed by Copper Electrodeposition in the Alkaline Copper-Sulfate Bath. Applied Mechanics and Materials, 0, 446-447, 104-108.	0.2	0