Patricia A Carvalho

List of Publications by Year in descending order

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152 papers

2,268 citations

201385 27 h-index

42 g-index

264894

152 all docs 152 docs citations

152 times ranked

3587 citing authors

#	Article	IF	CITATIONS
1	First hexagonal close packed high-entropy alloy with outstanding stability under extreme conditions and electrocatalytic activity for methanol oxidation. Scripta Materialia, 2017, 138, 22-27.	2.6	174
2	Docosahexaenoic Acid Inhibits Helicobacter pylori Growth In Vitro and Mice Gastric Mucosa Colonization. PLoS ONE, 2012, 7, e35072.	1.1	90
3	Star-shaped magnetite@gold nanoparticles for protein magnetic separation and SERS detection. RSC Advances, 2014, 4, 3690-3698.	1.7	86
4	Electron transport and optical characteristics in amorphous indium zinc oxide films. Journal of Non-Crystalline Solids, 2006, 352, 1471-1474.	1.5	83
5	Determination of dislocation density from hardness measurements in metals. Materials Letters, 2008, 62, 3812-3814.	1.3	81
6	One-pot synthesis of triangular gold nanoplates allowing broad and fine tuning of edge length. Nanoscale, 2010, 2, 2209.	2.8	73
7	Green photocatalytic synthesis of stable Au and Ag nanoparticles. Green Chemistry, 2009, 11, 1889.	4.6	69
8	New insights into the use of magnetic force microscopy to discriminate between magnetic and nonmagnetic nanoparticles. Nanotechnology, 2010, 21, 305706.	1.3	59
9	Nontuberculous mycobacteria pathogenesis and biofilm assembly. International Journal of Mycobacteriology, 2015, 4, 36-43.	0.3	59
10	Paper Microfluidics and Tailored Gold Nanoparticles for Nonenzymatic, Colorimetric Multiplex Biomarker Detection. ACS Applied Materials & Samp; Interfaces, 2021, 13, 3576-3590.	4.0	56
11	Influence of Mesoporous Silica Properties on Cyclic Carbonate Synthesis Catalysed by Supported Aluminium(Salen) Complexes. Advanced Synthesis and Catalysis, 2019, 361, 345-354.	2.1	50
12	Occurrence, characterisation and fate of (nano)particulate Ti and Ag in two Norwegian wastewater treatment plants. Water Research, 2018, 141, 19-31.	5.3	46
13	HRTEM study of Co7W6 and its typical defect structure. Acta Materialia, 2000, 48, 2703-2712.	3.8	44
14	Nickel–carbon nanocomposites: Synthesis, structural changes and strengthening mechanisms. Acta Materialia, 2012, 60, 737-747.	3.8	44
15	Exploring Dangerous Connections between Klebsiella pneumoniae Biofilms and Healthcare-Associated Infections. Pathogens, 2014, 3, 720-731.	1.2	44
16	Cubic silicon carbide as a potential photovoltaic material. Solar Energy Materials and Solar Cells, 2016, 145, 104-108.	3.0	41
17	Cu ₂ 0 polyhedral nanowires produced by microwave irradiation. Journal of Materials Chemistry C, 2014, 2, 6097.	2.7	39
18	Ecotoxicological Effects of Transformed Silver and Titanium Dioxide Nanoparticles in the Effluent from a Lab-Scale Wastewater Treatment System. Environmental Science & Technology, 2018, 52, 9431-9441.	4.6	39

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19	Photocatalytic behavior of TiO 2 films synthesized by microwave irradiation. Catalysis Today, 2016, 278, 262-270.	2.2	37
20	Nobleâ€Metalâ€Free Memristive Devices Based on IGZO for Neuromorphic Applications. Advanced Electronic Materials, 2020, 6, 2000242.	2.6	35
21	Automated workstation for variable composition laser cladding — its use for rapid alloy scanning. Surface and Coatings Technology, 1995, 72, 62-70.	2.2	34
22	Black Anatase TiO ₂ Nanotubes with Tunable Orientation for High Performance Supercapacitors. Journal of Physical Chemistry C, 2019, 123, 21931-21940.	1,5	33
23	Stacking faults in the Co7W6 isomorph of the $\hat{l}\frac{1}{4}$ phase. Scripta Materialia, 2001, 45, 333-340.	2.6	32
24	Consolidation of W–Ta composites: Hot isostatic pressing and spark and pulse plasma sintering. Fusion Engineering and Design, 2015, 98-99, 1950-1955.	1.0	31
25	Enhancement of thermoelectric properties by energy filtering: Theoretical potential and experimental reality in nanostructured ZnSb. Journal of Applied Physics, 2016, 119, .	1.1	31
26	Laser developed Al–Mo surface alloys: Microstructure, mechanical and wear behaviour. Surface and Coatings Technology, 2006, 200, 4782-4790.	2,2	29
27	Characterization of copper–cementite nanocomposite produced by mechanical alloying. Acta Materialia, 2005, 53, 967-976.	3.8	28
28	On the fccâ†'D019 transformation in Coâ€"W alloys. Acta Materialia, 2002, 50, 4511-4526.	3.8	27
29	Cytoadherence of erythrocytes invaded by Plasmodium falciparum: Quantitative contact-probing of a human malaria receptor. Acta Biomaterialia, 2013, 9, 6349-6359.	4.1	27
30	Europium Polyoxometalates Encapsulated in Silica Nanoparticles – Characterization and Photoluminescence Studies. European Journal of Inorganic Chemistry, 2013, 2013, 2877-2886.	1.0	26
31	Tailoring Upconversion and Morphology of Yb/Eu Doped Y2O3 Nanostructures by Acid Composition Mediation. Nanomaterials, 2019, 9, 234.	1.9	24
32	On Cr ₂ N precipitation mechanisms in high-nitrogen austenite. Philosophical Magazine, 2008, 88, 229-242.	0.7	23
33	Production of Cu/diamond composites for first-wall heat sinks. Fusion Engineering and Design, 2011, 86, 2589-2592.	1.0	23
34	The effects of tantalum addition on the microtexture and mechanical behaviour of tungsten for ITER applications. Journal of Nuclear Materials, 2015, 467, 949-955.	1.3	23
35	Leakage evolution and atomic-scale changes in Pd-based membranes induced by long-term hydrogen permeation. Journal of Membrane Science, 2018, 563, 398-404.	4.1	23
36	Synergistic helium and deuterium blistering in tungsten–tantalum composites. Journal of Nuclear Materials, 2013, 442, 69-74.	1.3	21

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37	Characterization of airborne particles generated from metal active gas welding process. Inhalation Toxicology, 2014, 26, 345-352.	0.8	21
38	Laser alloying of zinc with aluminum: solidification structures. Surface and Coatings Technology, 1997, 91, 158-166.	2.2	20
39	Mechanical synthesis of copper–carbon nanocomposites: Structural changes, strengthening and thermal stabilization. Materials Science & Discourse (amp; Engineering A: Structural Materials: Properties, Microstructure and Processing, 2011, 528, 8610-8620.	2.6	20
40	Blistering of W–Ta composites at different irradiation energies. Journal of Nuclear Materials, 2013, 438, S1032-S1035.	1.3	20
41	Half-Heusler phase formation and Ni atom distribution in M-Ni-Sn (MÂ= Hf, Ti, Zr) systems. Acta Materialia, 2018, 148, 216-224.	3.8	20
42	Helicobacter pylori Phage Screening. Microscopy and Microanalysis, 2008, 14, 150-151.	0.2	19
43	Structure and Growth of Sialoliths: Computed Microtomography and Electron Microscopy Investigation of 30 Specimens. Microscopy and Microanalysis, 2013, 19, 1190-1203.	0.2	19
44	Hydrogenic retention of high-Z refractory metals exposed to ITER divertor-relevant plasma conditions. Nuclear Fusion, 2010, 50, 055004.	1.6	17
45	Effects of helium and deuterium irradiation on SPS sintered W–Ta composites at different temperatures. Journal of Nuclear Materials, 2013, 442, S251-S255.	1.3	17
46	WC-Cu thermal barriers for fusion applications. Surface and Coatings Technology, 2018, 355, 222-226.	2.2	17
47	Erosion and re-deposition processes in JET tiles studied with ion beams. Nuclear Instruments & Methods in Physics Research B, 2010, 268, 1991-1996.	0.6	15
48	Formation of hydrogen bubbles in Pd-Ag membranes during H2 permeation. International Journal of Hydrogen Energy, 2020, 45, 7488-7496.	3.8	15
49	Consolidation of Cu-nDiamond Nanocomposites: Hot Extrusion vs Spark Plasma Sintering. Materials Science Forum, 2010, 636-637, 682-687.	0.3	14
50	Charging effects and surface potential variations of Cu-based nanowires. Thin Solid Films, 2016, 601, 45-53.	0.8	14
51	Room Temperature Synthesis of Cu2O Nanospheres: Optical Properties and Thermal Behavior. Microscopy and Microanalysis, 2015, 21, 108-119.	0.2	13
52	Microstructural characterization of the ODS Eurofer 97 EU-batch. Fusion Engineering and Design, 2011, 86, 2386-2389.	1.0	12
53	Dislocation structures in nanoindented ductile metalsâ€"a transmission electron microscopy direct observation. Journal Physics D: Applied Physics, 2011, 44, 335402.	1.3	12
54	Tungsten–nanodiamond composite powders produced by ball milling. Journal of Nuclear Materials, 2012, 426, 115-119.	1.3	12

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55	New WC-Cu thermal barriers for fusion applications: High temperature mechanical behaviour. Journal of Nuclear Materials, 2018, 498, 355-361.	1.3	12
56	On the Structural Diversity of Sialoliths. Microscopy and Microanalysis, 2007, 13, 390-396.	0.2	11
57	Isothermal section at 950°C of the U–Fe–B ternary system. Intermetallics, 2007, 15, 413-418.	1.8	11
58	Formation and delamination of beryllium carbide films. Journal of Nuclear Materials, 2013, 442, S320-S324.	1.3	11
59	Helium and deuterium irradiation effects in W-Ta composites produced by pulse plasma compaction. Journal of Nuclear Materials, 2017, 492, 105-112.	1.3	11
60	Laser alloying of zinc with aluminum: solidification behavior. Acta Materialia, 1998, 46, 1781-1792.	3.8	10
61	High-resolution transmission electron microscopy study of discontinuously precipitated Ni3Sn. Acta Materialia, 2000, 48, 4203-4215.	3.8	10
62	Identification of planar defects in D019phases using high-resolution transmission electron microscopy. Philosophical Magazine Letters, 2001, 81, 697-707.	0.5	10
63	Pathogens in Ornamental Waters: A Pilot Study. International Journal of Environmental Research and Public Health, 2016, 13, 216.	1.2	10
64	Hardening in copper-based nanocomposites. Journal of Alloys and Compounds, 2007, 434-435, 301-303.	2.8	8
65	Structural and physical properties of the U9Fe7Ge24 uranium germanide. Intermetallics, 2011, 19, 841-847.	1.8	8
66	lonic self-assembly reactions of a porphyrin octacation. Tetrahedron, 2016, 72, 6988-6995.	1.0	8
67	Microstructural evolution in tungsten and copper probes under hydrogen irradiation at ISTTOK. Journal of Nuclear Materials, 2009, 390-391, 1039-1042.	1.3	7
68	Synthesis of gold nanocubes in aqueous solution with remarkable shape-selectivity. Journal of Porphyrins and Phthalocyanines, 2011, 15, 441-448.	0.4	7
69	Notice on a methodology for characterizing emissions of ultrafine particles/nanoparticles in microenvironments. Energy and Emission Control Technologies, 0, , 15.	0.5	7
70	Magnetic microstructure of YFe11Ti aggregates. Journal of Alloys and Compounds, 2009, 487, 11-17.	2.8	6
71	Surface composition and morphology changes of JET tiles under plasma interactions. Fusion Engineering and Design, 2011, 86, 2557-2560.	1.0	6
72	Tungsten–microdiamond composites for plasma facing components. Journal of Nuclear Materials, 2011, 416, 45-48.	1.3	6

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73	Exploring the Contribution of Mycobacteria Characteristics in Their Interaction with Human Macrophages. Microscopy and Microanalysis, 2013, 19, 1159-1169.	0.2	6
74	Emission of Nanoparticles During Friction Stir Welding (FSW) of Aluminium Alloys. Journal of Toxicology and Environmental Health - Part A: Current Issues, 2014, 77, 924-930.	1.1	6
75	Boron-Implanted 3C-SiC for Intermediate Band Solar Cells. Materials Science Forum, 2016, 858, 291-294.	0.3	6
76	Transmission electron microscopy study of copper–carbon nanocomposite. Materials Science and Technology, 2006, 22, 673-678.	0.8	5
77	Grain boundary corrosion in TiO2 bone scaffolds doped with group II cations. Journal of the European Ceramic Society, 2019, 39, 1577-1585.	2.8	5
78	Mineralization of Sialoliths Investigated by <i>Ex Vivo</i> and <i>In Vivo</i> X-ray Computed Tomography. Microscopy and Microanalysis, 2019, 25, 151-163.	0.2	5
79	Regional bond strength to lateral walls in class I and II ceramic inlays luted with four resin cements and glass-ionomer luting agent. Journal of Adhesive Dentistry, 2011, 13, 455-65.	0.3	5
80	Laser Developed Al-Cr Surface Alloys: Microstructure, Mechanical and Wear Behaviour. Materials Science Forum, 2006, 514-516, 490-494.	0.3	4
81	Cascade of Peritectic Reactions in the B-Fe-U System. Journal of Phase Equilibria and Diffusion, 2010, 31, 104-112.	0.5	4
82	Studies on the new UFe2B6 phase. Journal of Alloys and Compounds, 2010, 492, L13-L15.	2.8	4
83	Microstructures and magnetic domain configurations of NdFe11Ti and Nd2(Fe,Ti)17 aggregates. Applied Physics A: Materials Science and Processing, 2011, 104, 1053-1060.	1.1	4
84	Liquidus Projection of the B-Fe-U Diagram: The Boron-Rich Corner. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2013, 44, 395-405.	1.1	4
85	On oral calcifications: sialoliths, dental calculi and tonsilloliths. Microscopy and Microanalysis, 2013, 19, 23-24.	0.2	4
86	Long- and short-range structures of Ti _{1\hat{a}'x} Hf _x Ni _{1.0/1.1} Sn half-Heusler compounds and their electric transport properties. CrystEngComm, 2019, 21, 3330-3342.	1.3	4
87	Stability of beryllium coatings deposited on carbon under annealing up to 1073 K. Fusion Engineering and Design, 2019, 146, 303-307.	1.0	4
88	ZnCr2O4 Inclusions in ZnO Matrix Investigated by Probe-Corrected STEM-EELS. Materials, 2019, 12, 888.	1.3	4
89	MnO2 counter-electrode structure in Ta capacitors: A TEM study. Acta Materialia, 2005, 53, 4723-4732.	3.8	3
90	Copper–micrometer-sized diamond nanostructured composites. Physica Scripta, 2011, T145, 014069.	1.2	3

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91	Nanodiamond Dispersions in Nanostructured Metals. Microscopy and Microanalysis, 2012, 18, 73-74.	0.2	3
92	Liquidus Projection of the B-Fe-U Diagram: The Fe-Rich Corner. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2013, 44, 2270-2284.	1.1	3
93	Uniform Arrays of ZnO 1D Nanostructures Grown on Al:ZnO Seeds Layers by Hydrothermal Method. Journal of Nanoscience and Nanotechnology, 2013, 13, 6701-6710.	0.9	3
94	Local Response of Sialoliths to Lithotripsy: Cues on Fragmentation Outcome. Microscopy and Microanalysis, 2017, 23, 584-598.	0.2	3
95	Boron-doping of cubic SiC for intermediate band solar cells: a scanning transmission electron microscopy study. SciPost Physics, 2018, 5, .	1.5	3
96	Thin films made by reactive sputtering of high entropy alloy FeCoNiCuGe: Optical, electrical and structural properties. Thin Solid Films, 2022, 744, 139083.	0.8	3
97	High entropy alloy CrFeNiCoCu sputter deposited films: Structure, electrical properties, and oxidation. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2022, 40, .	0.9	3
98	On the performance of pyrolytic MnO2/tantalum capacitors: Columnar vs. nanocrystalline cathodic layers. Acta Materialia, 2007, 55, 3757-3763.	3.8	2
99	Magnetic domain morphologies and wall energy in YFe11Ti crystals. Materials Characterization, 2009, 60, 1607-1612.	1.9	2
100	Influence of temperature and plasma composition on deuterium retention in refractory metals. Nuclear Instruments & Methods in Physics Research B, 2010, 268, 2124-2128.	0.6	2
101	Structure Properties of the ${m YFe}_{11}{m Mo}$ Intermetallic Compound. IEEE Transactions on Magnetics, 2013, 49, 1149-1152.	1.2	2
102	Investigation of elemental distribution in cat femoral head by nuclear microprobe and SEM for Paget disease of bone studies. Microscopy and Microanalysis, 2013, 19, 79-80.	0.2	2
103	Nanodiamond dispersions in metallic matrices with different carbon affinity. Microscopy and Microanalysis, 2013, 19, 121-122.	0.2	2
104	Partial oxidation of high entropy alloys: A route toward nanostructured ferromagnets. Materialia, 2021, 20, 101250.	1.3	2
105	W-Diamond/Cu-Diamond nanostructured composites for fusion devices. Materials Research Society Symposia Proceedings, 2008, 1125, 1.	0.1	1
106	Atomic Force Microscopy in Bioengineering Applications. Nanoscience and Technology, 2012, , 397-430.	1.5	1
107	Crystal structure and magnetism of UFe3B2. Journal of Magnetism and Magnetic Materials, 2012, 324, 2649-2653.	1.0	1
108	Hybrid systems of gold and silver nanoparticles generated on cellulose surfaces. Microscopy and Microanalysis, 2013, 19, 119-120.	0.2	1

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109	Differences between synthetic \hat{l}^2 -haematin and native hemozoin crystals. Microscopy and Microanalysis, 2013, 19, 49-50.	0.2	1
110	Microscopy: A tool for quantitative pozzolanic activity in blended cements. Microscopy and Microanalysis, 2013, 19, 97-98.	0.2	1
111	HOLZ Rings in EBSD Patterns of the UFeB4 Compound: Association with a Random Distribution of Planar Defects. Microscopy and Microanalysis, 2013, 19, 1204-1210.	0.2	1
112	Electron Diffraction of ThMn12/Th2Zn17-Type Structures in the Nd-Fe-Ti System. Microscopy and Microanalysis, 2013, 19, 1211-1215.	0.2	1
113	Bacterial biofilms, antibiotic resistance and healthcare-associated infections: a dangerous connection Microscopy and Microanalysis, 2015, 21, 38-39.	0.2	1
114	Characterization Of Enamel Surface After Orthodontic Brackets Debonding: An In Vitro Study. Microscopy and Microanalysis, 2015, 21, 64-65.	0.2	1
115	Reliability of plastic core solder balls in relation to formation of intermetallic compounds., 2016,,.		1
116	Optical and Microstructural Investigation of Heavy B-Doping Effects in Sublimation-Grown 3C-SiC. Materials Science Forum, 2018, 924, 221-224.	0.3	1
117	Gibbs-Thomson effect as driving force for liquid film migration: Converting metallic into ceramic fibers through intrinsic oxidation. Acta Materialia, 2021, 218, 117216.	3.8	1
118	Ultrastructural and EDS Study of Sialoliths of the Salivary Glands. Microscopy and Microanalysis, 2005, 11 , .	0.2	0
119	Laser Cladding Applications to Combinatorial Materials Science. , 2005, , 290-299.		0
120	Study of laser developed Al-Cr surface alloys: Microstructure, mechanical and wear behavior. , 2005, , .		0
121	TEM Investigation of Counter-Electrode Structure in Ta Capacitors. Microscopy and Microanalysis, 2005, 11, .	0.2	0
122	WidmanstÃtten Co3 W: HRTEM study of DO19 precipitation in an fcc matrix., 2006,, 368-372.		0
123	TEM and XRD Investigation of MnO ₂ Microstructure and its Influence on ESR of Ta Capacitors. Materials Science Forum, 2006, 514-516, 269-273.	0.3	0
124	Complex and superlattice stacking faults in D019 Co3W. Philosophical Magazine, 2006, 86, 1763-1774.	0.7	0
125	Effects of hydrogen permeation on W, Mo and Cu Langmuir probes at ISTTOK. Materials Research Society Symposia Proceedings, 2008, 1125, 1.	0.1	0
126	Nanoparticles for enhanced contrast optical coherence tomography., 2008,,.		0

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127	Biomaterials research at NanoLab(IST): Seeding seeds for the future. , 2011, , .		O
128	Structural characterization of salivary calculi., 2012,,.		0
129	Multiscale Copper-ÂμDiamond Nanostructured Composites. Materials Science Forum, 0, 730-732, 925-930.	0.3	0
130	Characterization of Salivary Calculi. Microscopy and Microanalysis, 2012, 18, 13-14.	0.2	0
131	Genotoxic Effect of Inhaled Ambient Particulate Matter. Microscopy and Microanalysis, 2012, 18, 25-26.	0.2	0
132	An SEM Investigation of the Pozzolanic Activity of a Waste Catalyst from Oil Refinery. Microscopy and Microanalysis, 2012, 18, 75-76.	0.2	0
133	Carbon Deposition on Beryllium Substrates and Subsequent Delamination. Materials Science Forum, 2012, 730-732, 179-184.	0.3	0
134	Effect of Cadmium exposure in the ubiquitous coccolithophore Emiliania huxleyi. Microscopy and Microanalysis, 2013, 19, 5-6.	0.2	0
135	Morphologic characterization of Mycobacterium tuberculosis circulating strains in a Lisbon hospital Microscopy and Microanalysis, 2013, 19, 11-12.	0.2	0
136	Structural typologies of salivary calculi. Microscopy and Microanalysis, 2013, 19, 29-30.	0.2	0
137	Elemental interdiffusion in W-Ta composites developed for fusion applications. Microscopy and Microanalysis, 2013, 19, 123-124.	0.2	0
138	TEM studies of the ThMn12–type and Th2Zn17–type phases in the Nd-Fe-Ti system. Microscopy and Microanalysis, 2013, 19, 129-130.	0.2	0
139	On the YFe11Mo intermetallic characterization. Microscopy and Microanalysis, 2013, 19, 135-136.	0.2	0
140	Analysis of a gold solidus of roman emperor Valentinian I. Microscopy and Microanalysis, 2013, 19, 139-140.	0.2	0
141	Studies on deuterium retention in W-Ta based materials. Microscopy and Microanalysis, 2013, 19, 125-126.	0.2	0
142	B-Fe-U Phase Diagram. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2014, 45, 1813-1822.	1.1	0
143	Mean X-ray attenuation of salivary calculi computed from microtomography data. Microscopy and Microanalysis, 2015, 21, 62-63.	0.2	0
144	On oral calcifications: Tartar and Pulp stones. Microscopy and Microanalysis, 2015, 21, 66-67.	0.2	0

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145	Pozzolanic activity of oil-refining catalyst: evaluation by electron and atomic force microscopy. Microscopy and Microanalysis, 2015, 21, 80-81.	0.2	0
146	Growth of mixed materials in the Be/W/O system in fusion devices. Microscopy and Microanalysis, $2015, 21, 94-95$.	0.2	0
147	Self-lubricant behaviour of copper-carbon nanocomposites: An electron microscopy and atomic force microscopy study. Microscopy and Microanalysis, 2015, 21, 114-115.	0.2	O
148	EBSD studies on iron-rich UxFeyBz compounds. Microscopy and Microanalysis, 2015, 21, 116-117.	0.2	0
149	W-Ta Composites Consolidated by Spark Plasma Sintering. Microscopy and Microanalysis, 2015, 21, 27-28.	0.2	O
150	Salivary calculi morphology: SEM and mCT correlative observation. International Journal of Oral and Maxillofacial Surgery, 2015, 44, e271.	0.7	0
151	Risk assessment for public health from human interaction with ornamental waters. Microscopy and Microanalysis, 2016, 22, 12-13.	0.2	0
152	Investigation of <i>veryintenseD</i> 3-band emission in multi-crystalline silicon wafers using electron microscopy and hyperspectral photoluminescence imaging. Journal of Applied Physics, 2022, 131, 145703.	1.1	0