Rong Yu

List of Publications by Year
in descending order

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146 papers	8,816 citations	66343 42 h-index	43889 91 g-index
151 all docs	151 docs citations	151 times ranked	11429 citing authors

#	Article	IF	Citations
1	Displacement separation analysis from atomic-resolution images. Ultramicroscopy, 2022, 232, 113404.	1.9	3
2	Stabilization of the (1 1 1) surface of NiO and CoO by segregation of point defects. Applied Surface Science, 2022, 582, 152473.	6.1	3
3	Two-band superconductivity through structural and electronic reconstruction on interface: YBa₂Cu₃O₇/LaAlO₃(001). Journal of Applied Physics, 2022, 131, 125303.	2.5	0
4	Unveiling the charge transfer dynamics steered by built-in electric fields in BiOBr photocatalysts. Nature Communications, 2022, 13, 2230.	12.8	117
5	Deep sub-angstrom resolution imaging by electron ptychography with misorientation correction. Science Advances, 2022, 8, eabn2275.	10.3	20
6	Twin Boundary and Fivefold Twins in Nickel Oxide. Physica Status Solidi (B): Basic Research, 2021, 258, 2000377.	1.5	5
7	Defect structures of the Cr₂O₃(112Ì„0) surface: effect of electron beam irradiation. Journal of Materials Chemistry C, 2021, 9, 6324-6331.	5.5	6
8	Polyhedron and Charge Ordering in Interfacial Reconstruction of a Hexagonal Ferrite/Sapphire Heterostructure. ACS Applied Materials & Interfaces, 2021, 13, 11489-11496.	8.0	2
9	Metastable Ce-terminated (1 1 1) surface of ceria. Applied Surface Science, 2021, 546, 148972.	6.1	7
10	Properties of stress-induced super tetragonal phase in epitaxial BiFeO3 thin film. Applied Physics Letters, 2021, 118, 242903.	3.3	0
11	Surface Structures of Mn₃O₄ and the Partition of Oxidation States of Mn. Journal of Physical Chemistry Letters, 2021, 12, 5675-5681.	4.6	9
12	Atomic Structure of the Cu₂O(111) Surface: A Transmission Electron Microscopy and DFTâ€‰+â€‰U Study. Physica Status Solidi (B): Basic Research, 2021, 258, 2100185.	1.5	3
13	Controlling Strain Relaxation by Interface Design in Highly Lattice-Mismatched Heterostructure. Nano Letters, 2021, 21, 6867-6874.	9.1	6
14	Comparative first-principles study of elastic constants of covalent and ionic materials with LDA, GGA, and meta-GGA functionals and the prediction of mechanical hardness. Science China Technological Sciences, 2021, 64, 2755-2761.	4.0	3
15	Atomic structures of twin boundaries in CoO. Physical Chemistry Chemical Physics, 2021, 23, 25590-25596.	2.8	6
16	Structural and spin state transition in the polar NiO(1 1 1) surface. Applied Surface Science, 2020, 532, 147427.	6.1	11
17	Atomic Structure and Properties of SnO₂ (100) and (101) Surfaces and (301) Steps in the (100) Surface. Journal of Physical Chemistry C, 2020, 124, 27631-27636.	3.1	6
18	Structural distortion and collinear-to-helical magnetism transition in rutile-type <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:mi>Fe</mml:mi><mml:msub><mml:mi mathvariant="normal">O</mml:mi><mml:mn>2</mml:mn></mml:msub></mml:mrow></mml:math>. Physical Review B, 2020, 102, .	3.2	1

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19	Surface termination and stoichiometry of LaAlO3(001) surface studied by HRTEM. Micron, 2020, 137, 102919.	2.2	10
20	Flexible Cation Distribution for Stabilizing a Spinel Surface. Journal of Physical Chemistry C, 2020, 124, 16431-16438.	3.1	10
21	Atomic structure and properties of a perovskite/spinel (111) interface. Physical Review B, 2020, 102, .	3.2	6
22	Atomic structures of high Miller index surfaces of NiO. Journal of Materials Chemistry C, 2020, 8, 14164-14171.	5.5	7
23	Rareâ€Earth Single Erbium Atoms for Enhanced Photocatalytic CO₂ Reduction. Angewandte Chemie, 2020, 132, 10738-10744.	2.0	49
24	Rareâ€Earth Single Erbium Atoms for Enhanced Photocatalytic CO₂ Reduction. Angewandte Chemie - International Edition, 2020, 59, 10651-10657.	13.8	314
25	Structure and Stability of the (001) Surface of Co₃O₄. Journal of Physical Chemistry C, 2020, 124, 25790-25795.	3.1	13
26	Three-dimensional open nano-netcage electrocatalysts for efficient pH-universal overall water splitting. Nature Communications, 2019, 10, 4875.	12.8	253
27	PdAg bimetallic electrocatalyst for highly selective reduction of CO2 with low COOH* formation energy and facile CO desorption. Nano Research, 2019, 12, 2866-2871.	10.4	61
28	Visualization of Dopant Oxygen Atoms in a Bi₂Sr₂CaCu₂O₈₊_{Î´} Superconductor. Advanced Functional Materials, 2019, 29, 1903843.	14.9	34
29	Prediction of stable high-pressure structures of tantalum nitride TaN2. Journal of Materials Science and Technology, 2019, 35, 2297-2304.	10.7	8
30	Single-atom tailoring of platinum nanocatalysts for high-performance multifunctional electrocatalysis. Nature Catalysis, 2019, 2, 495-503.	34.4	464
31	Nitrogen-coordinated cobalt nanocrystals for oxidative dehydrogenation and hydrogenation of N-heterocycles. Chemical Science, 2019, 10, 5345-5352.	7.4	60
32	Hardening tungsten carbide by alloying elements with high work function. Acta Crystallographica Section B: Structural Science, Crystal Engineering and Materials, 2019, 75, 994-1002.	1.1	2
33	Effect of Oxygen Interstitial Ordering on Multiple Order Parameters in Rare Earth Ferrite. Physical Review Letters, 2019, 123, 247601.	7.8	13
34	Coherent Topotactic Interface between Corundum and Rutile Structures. Journal of Physical Chemistry C, 2019, 123, 534-540.	3.1	3
35	Tuning defects in oxides at roomÂtemperature by lithium reduction. Nature Communications, 2018, 9, 1302.	12.8	428
36	Atomic scale imaging of magnetic circular dichroism by achromatic electron microscopy. Nature Materials, 2018, 17, 221-225.	27.5	60

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37	Atomic Heterointerfaces and Electrical Transportation Properties in Selfâ€Assembled LaNiO₃â€“NiO Heteroepitaxy. Advanced Materials Interfaces, 2018, 5, 1701202.	3.7	7
38	Oxygen adatoms and vacancies on the (110) surface of CeO2. Science China Technological Sciences, 2018, 61, 135-139.	4.0	14
39	Structure stabilization effect of configuration entropy in cubic WN. Physical Chemistry Chemical Physics, 2018, 20, 29243-29248.	2.8	3
40	Bilayer MoS2 quantum dots with tunable magnetism and spin. AIP Advances, 2018, 8, 115103.	1.3	2
41	Single-atomic cobalt sites embedded in hierarchically ordered porous nitrogen-doped carbon as a superior bifunctional electrocatalyst. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, 12692-12697.	7.1	325
42	Atomic-scale structure characteristics of antiferroelectric silver niobate. Applied Physics Letters, 2018, 113, .	3.3	8
43	Subsurface reconstruction and saturation of surface bonds. Science Bulletin, 2018, 63, 1570-1575.	9.0	16
44	Roles of Oxygen Vacancy in Improper Ferroelectrics. Microscopy and Microanalysis, 2018, 24, 74-75.	0.4	0
45	Carbon nitride supported Fe2 cluster catalysts with superior performance for alkene epoxidation. Nature Communications, 2018, 9, 2353.	12.8	278
46	Strengthening materials by changing the number of valence electrons. Computational Materials Science, 2017, 129, 252-258.	3.0	7
47	Prediction on technetium triboride from first-principles calculations. Solid State Communications, 2017, 252, 40-45.	1.9	20
48	Strain Concentration at the Boundaries in 5-Fold Twins of Diamond and Silicon. ACS Applied Materials & Interfaces, 2017, 9, 4253-4258.	8.0	19
49	Isolated Single-Atom Pd Sites in Intermetallic Nanostructures: High Catalytic Selectivity for Semihydrogenation of Alkynes. Journal of the American Chemical Society, 2017, 139, 7294-7301.	13.7	354
50	Formation of Hexagonal-Close Packed (HCP) Rhodium as a Size Effect. Journal of the American Chemical Society, 2017, 139, 575-578.	13.7	58
51	Low-energy transmission electron diffraction and imaging of large-area graphene. Science Advances, 2017, 3, e1603231.	10.3	35
52	Atomic Mechanism of Hybridization-Dependent Surface Reconstruction with Tailored Functionality in Hexagonal Multiferroics. ACS Applied Materials & Interfaces, 2017, 9, 27322-27331.	8.0	12
53	Structural stability and the alloying effect of TiB polymorphs in TiAl alloys. Intermetallics, 2017, 90, 97-102.	3.9	35
54	Crystal structure of and displacive phase transition in tungsten nitride WN. Journal of Alloys and Compounds, 2017, 722, 517-524.	5.5	17

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55	Atomic layer reversal on CeO2 (100) surface. Science China Materials, 2017, 60, 903-908.	6.3	17
56	A new type of vanadium carbide V5C3 and its hardening by tuning Fermi energy. Scientific Reports, 2016, 6, 21794.	3.3	22
57	Competing Interfacial Reconstruction Mechanisms in La_{0.7}Sr_{0.3}MnO₃/SrTiO₃ Heterostructures. ACS Applied Materials & Interfaces, 2016, 8, 24192-24197.	8.0	24
58	Ultrafine jagged platinum nanowires enable ultrahigh mass activity for the oxygen reduction reaction. Science, 2016, 354, 1414-1419.	12.6	1,292
59	Engineering the surface of rutile TiO₂ nanoparticles with quantum pits towards excellent lithium storage. RSC Advances, 2016, 6, 66197-66203.	3.6	10
60	Core structures of <001> {110} edge dislocations in BaTiO3. AIP Advances, 2015, 5, 077172.	1.3	0
61	Spontaneous orientation-tuning driven by the strain variation in self-assembled ZnO-SrRuO3 heteroepitaxy. Applied Physics Letters, 2015, 107, .	3.3	4
62	Direct Observation of Thickness Dependence of Ferroelectricity in Freestanding BaTiO₃ Thin Film. Journal of the American Ceramic Society, 2015, 98, 2710-2712.	3.8	14
63	Deuterium ion irradiation induced precipitation in Feâ€“Cr alloy: Characterization and effects on irradiation behavior. Journal of Nuclear Materials, 2015, 459, 81-89.	2.7	6
64	Atomic structure and polarity compensation of BaTiO3(1â€‰1â€‰1) surface. Journal of Physics Condensed Matter, 2015, 27, 095901.	1.8	2
65	Enhanced stability of the strengthening phase Ni2(Cr,Mo) in Niâ€“Crâ€“Mo alloys by adjacent instability. Computational Materials Science, 2015, 109, 111-114.	3.0	3
66	Ultrathin CuO nanorods: controllable synthesis and superior catalytic properties in styrene epoxidation. Chemical Communications, 2015, 51, 8817-8820.	4.1	31
67	Platinumâ€“nickel frame within metal-organic framework fabricated in situ for hydrogen enrichment and molecular sieving. Nature Communications, 2015, 6, 8248.	12.8	184
68	Determination of the incommensurate modulated structure of Bi2Sr1.6La0.4CuO6+ by aberration-corrected transmission electron microscopy. Ultramicroscopy, 2015, 159, 67-72.	1.9	6
69	Kinetical faceting of the low index W surfaces under electrical current. Surface Science, 2014, 625, 10-15.	1.9	7
70	Softest elastic mode governs materials hardness. Science Bulletin, 2014, 59, 1747-1754.	1.7	14
71	Experimental measurements and theoretical calculations of the atomic structure of materials with subangstrom resolution and picometer precision. Science Bulletin, 2014, 59, 1719-1724.	1.7	5
72	Orientation-tuning in self-assembled heterostructures induced by a buffer layer. Nanoscale, 2014, 6, 5126-5131.	5.6	17

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73	Early precipitation of Ni 2 (Cr,Mo) phase. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2014, 615, 1-6.	5.6	6
74	Sophisticated Construction of Au Islands on Ptâ€“Ni: An Ideal Trimetallic Nanoframe Catalyst. Journal of the American Chemical Society, 2014, 136, 11594-11597.	13.7	216
75	Ultrathin rhodium nanosheets. Nature Communications, 2014, 5, 3093.	12.8	428
76	Evaluation of stacking faults and associated partial dislocations in AlSb/GaAs (001) interface by aberration-corrected high-resolution transmission electron microscopy. AIP Advances, 2014, 4, .	1.3	7
77	Defect-Dominated Shape Recovery of Nanocrystals: A New Strategy for Trimetallic Catalysts. Journal of the American Chemical Society, 2013, 135, 12220-12223.	13.7	96
78	Self-assembled perovskite-spinel heterostructure on a highly distorted substrate. Applied Physics Letters, 2013, 102, .	3.3	11
79	Atomic steps on the MgO(100) surface. Physical Review B, 2013, 87, .	3.2	12
80	Quantitative experimental determination of site-specific magnetic structures by transmitted electrons. Nature Communications, 2013, 4, 1395.	12.8	66
81	Atomic-scale study of topological vortex-like domain pattern in multiferroic hexagonal manganites. Applied Physics Letters, 2013, 103, 032901.	3.3	19
82	One-Pot Protocol for Bimetallic Pt/Cu Hexapod Concave Nanocrystals with Enhanced Electrocatalytic Activity. Scientific Reports, 2013, 3, 1404.	3.3	68
83	Palladium/tin bimetallic single-crystalline hollow nanospheres. Chemical Communications, 2012, 48, 1683-1685.	4.1	20
84	Highly branched Ptâ€“Ni nanocrystals enclosed by stepped surface for methanol oxidation. Chemical Science, 2012, 3, 1925.	7.4	146
85	Lattice Strain Distributions in Individual Dealloyed Ptâ€“Fe Catalyst Nanoparticles. Journal of Physical Chemistry Letters, 2012, 3, 934-938.	4.6	124
86	Subangstrom Profile Imaging of Relaxed ZnO(101Ì…0) Surfaces. Nano Letters, 2012, 12, 704-708.	9.1	25
87	Effect of oxygen stoichiometry in LuFe₂O_{4â^Î´}and its microstructure observed by aberration-corrected transmission electron microscopy. Journal of Physics Condensed Matter, 2012, 24, 435901.	1.8	9
88	Static and dynamic polar nanoregions in relaxor ferroelectric Ba(Ti<mml:math) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 167 Td (xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:msub><mml:mrow /><mml:	3.2	73
89	Reversible Wurtziteâ€“Tetragonal Reconstruction in ZnO(10$ar 1$0) Surfaces. Angewandte Chemie - International Edition, 2012, 51, 7744-7747.	13.8	41
90	Effective transference numbers and water incorporation in glassâ€“ceramic La(PO3)3â€“Ca(PO3)2 in oxidizing atmospheres. Solid State Ionics, 2012, 217, 34-39.	2.7	0

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91	Effective object planes for aberration-corrected transmission electron microscopy. Ultramicroscopy, 2012, 112, 15-21.	1.9	10
92	Microscopic model for the ferroelectric field effect in oxide heterostructures. Physical Review B, 2011, 84, .	3.2	51
93	Ultrathin Auâ€“Ag bimetallic nanowires with Coulomb blockade effects. Chemical Communications, 2011, 47, 5160.	4.1	69
94	Influence of Stress and Orientation on Magnetoelectric Coupling of Pb(Zr,Ti)O3-CoFe2O4 Bilayer Films. Journal of the American Ceramic Society, 2011, 94, 1060-1066.	3.8	40
95	Dynamic microscopic structures and dielectric response in the cubic-to-tetragonal phase transition for BaTiO3 studied by first-principles molecular dynamics simulation. Journal of Applied Physics, 2011, 109, .	2.5	5
96	Undulating Slip in Laves Phase and Implications for Deformation in Brittle Materials. Physical Review Letters, 2011, 106, 165505.	7.8	46
97	A Seedâ€Based Diffusion Route to Monodisperse Intermetallic CuAu Nanocrystals. Angewandte Chemie - International Edition, 2010, 49, 2917-2921.	13.8	167
98	Addition of ferromagnetic CoFe2O4 to YBCO thin films for enhanced flux pinning. Physica C: Superconductivity and Its Applications, 2010, 470, S223-S224.	1.2	17
99	Calculations of single-crystal elastic constants made simple. Computer Physics Communications, 2010, 181, 671-675.	7.5	182
100	Direct Subangstrom Measurement of Surfaces of Oxide Particles. Physical Review Letters, 2010, 105, 226101.	7.8	60
101	Ferroelectric polarization and domain walls in orthorhombic (K1â^'xNax)NbO3 lead-free ferroelectric ceramics. Applied Physics Letters, 2010, 96, .	3.3	11
102	Multishell Intermetallic Onions by Symmetrical Configuration of Ordered Domains. Physical Review Letters, 2010, 105, 225501.	7.8	4
103	Superconductorâ€“ferromagnet nanocomposites created by co-deposition of niobium and dysprosium. Superconductor Science and Technology, 2009, 22, 075001.	3.5	3
104	A novel controllable synthesis of silica nanotube arrays with ultraviolet photoluminescence. Solid State Sciences, 2009, 11, 1252-1257.	3.2	3
105	Large-area silica nanotubes with controllable geometry on silicon substrates. Applied Surface Science, 2009, 255, 3563-3566.	6.1	11
106	Icosahedral Face-Centered Cubic Fe Nanoparticles: Facile Synthesis and Characterization with Aberration-Corrected TEM. Nano Letters, 2009, 9, 1572-1576.	9.1	80
107	Practical Magnetic Pinning in YBCO. IEEE Transactions on Applied Superconductivity, 2009, 19, 3148-3151.	1.7	27
108	Impact of carbon structure and morphology on the electrochemical performance of LiFePO4/C composites. Journal of Solid State Electrochemistry, 2008, 12, 995-1001.	2.5	90

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109	Epitaxial growth of Fe3O4 (111) on SrTiO3 (001) substrates. Journal of Crystal Growth, 2008, 310, 5282-5286.	1.5	19
110	Proton conduction and characterization of an La(PO3)3â€“Ca(PO3)2 glassâ€“ceramic. Solid State Ionics, 2008, 178, 1811-1816.	2.7	20
111	Strain control and spontaneous phase ordering in vertical nanocomposite heteroepitaxial thin films. Nature Materials, 2008, 7, 314-320.	27.5	334
112	Spontaneous ordering, strain control and mutlifunctionality in vertical nanocomposite heteroepitaxial films. , 2008, , .		0
113	Elastic constants and tensile properties ofAl2OCby density functional calculations. Physical Review B, 2007, 75, .	3.2	19
114	First-principles calculations of the effect of Pt on NiAl surface energy and the site preference of Pt. Applied Physics Letters, 2007, 91, .	3.3	21
115	Proton-Transfer Mechanism in LaPO4. Journal of Physical Chemistry C, 2007, 111, 11003-11007.	3.1	71
116	Proton transport paths in lanthanum phosphate electrolytes. Solid State Ionics, 2007, 178, 769-773.	2.7	29
117	Synthesis and characterization of mixed-morphology CePO4 nanoparticles. Journal of Solid State Chemistry, 2007, 180, 840-846.	2.9	35
118	Crystal Structures of and Displacive Transitions in OsN2, IrN2, RuN2, and RhN2. Angewandte Chemie - International Edition, 2007, 46, 1136-1140.	13.8	116
119	Elastic stability and electronic structure of pyrite type PtN2: A hard semiconductor. Applied Physics Letters, 2006, 88, 051913.	3.3	117
120	A Power-aware and Range-free Localization Algorithm for Sensor Networks. , 2006, , .		5
121	Robust Power-Aware Routing in Wireless Sensor Networks with Special Concern about Localization Error. , 2006, , .		4
122	Structure and interface chemistry of perovskite-spinel nanocomposite thin films. Applied Physics Letters, 2006, 89, 172902.	3.3	122
123	Interstitial oxygen-related defects and current leakage in trench metal-oxide-semiconductor field-effect transistor on epiâ•As++ structure. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2006, 24, 1238-1242.	2.1	1
124	High temperature nitrogen annealing induced interstitial oxygen precipitation in silicon epitaxial layer on heavily arsenic-doped silicon wafer. Applied Physics Letters, 2006, 88, 242112.	3.3	7
125	Thermally Driven Interfacial Dynamics of Metal/Oxide Bilayer Nanoribbons. Small, 2005, 1, 858-865.	10.0	24
126	Family of noble metal nitrides: First principles calculations of the elastic stability. Physical Review B, 2005, 72, .	3.2	81

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127	Topology of charge density and elastic anisotropy of Ti3SiC2 polymorphs. Journal of Materials Research, 2005, 20, 1180-1185.	2.6	28
128	Impacts of Back Surface Conditions on the Behavior of Oxygen in Heavily Arsenic Doped Czochralski Silicon Wafers. Materials Research Society Symposia Proceedings, 2005, 864, 9181.	0.1	3
129	Thermal Wetting of Platinum Nanocrystals on Silica Surface. Journal of Physical Chemistry B, 2005, 109, 6940-6943.	2.6	75
130	Platinum nitride with fluorite structure. Applied Physics Letters, 2005, 86, 121913.	3.3	94
131	Effects of Si and Al on twin boundary energy of TiC. Acta Materialia, 2003, 51, 2477-2484.	7.9	79
132	Microstructural study on multilayer [FeTaN/TaN]5 films. Materials Letters, 2003, 57, 3904-3909.	2.6	6
133	Stacking faults and grain boundaries of Ti 3 SiC 2. Philosophical Magazine Letters, 2003, 83, 325-331.	1.2	22
134	Reversible Structural Transition in Epitaxial Manganite Film. Physical Review Letters, 2002, 88, 196104.	7.8	16
135	Effect of W on structural stability of TiAl intermetallics and the site preference of W. Physical Review B, 2002, 65, .	3.2	44
136	The effect of doping Ag on the microstructure of La2/3Sr1/3MnO3 films. Journal of Materials Research, 2002, 17, 2712-2719.	2.6	5
137	Polymorphism of Ti₃SiC₂. Journal of Materials Research, 2002, 17, 948-950.	2.6	36
138	B2 precipitates and distribution of W in a Tiâ€“47Alâ€“2Wâ€“0.5Si alloy. Intermetallics, 2002, 10, 661-665.	3.9	28
139	Si-induced twinning of TiC and formation of Ti3SiC2 platelets. Acta Materialia, 2002, 50, 4127-4135.	7.9	72
140	Microstructural characterization of Feâ€“N thin films. Thin Solid Films, 2002, 411, 225-228.	1.8	17
141	Orientation relationships and interfaces between NiAl and G-phase Ni16Hf6Si7. Materials Letters, 2001, 49, 25-28.	2.6	3
142	On the orientation relationship between Ti5Si3 precipitates and B2 phase in a Ti-47Al-2W-0.5Si alloy. Scripta Materialia, 2001, 44, 911-916.	5.2	22
143	Metal/ceramic interface in an in situsynthesized Ti/TiC_P composite coating by laser processing. Journal of Materials Research, 2001, 16, 9-12.	2.6	7
144	On the orientation relationship between a2precipitates and the B2 phase in a Ti-47at.%Al-2at.%W-0.5at.%Si alloy. Philosophical Magazine Letters, 2001, 81, 71-76.	1.2	5

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145	Orientation relationship and interfacial structure between Î¶-Ti5Si3 precipitates and Î³-TiAl intermetallics. Acta Materialia, 2000, 48, 3701-3710.	7.9	42
146	Halfâ€Metallic CoO 2 and Semiconducting NiO 2 at High Pressures. Physica Status Solidi (B): Basic Research, 0, , 2100233.	1.5	0