

# Yongjun Tian

## List of Publications by Citations

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368  
papers

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377  
ext. papers

13,038  
ext. citations

5.4  
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L-index

#	Paper	IF	Citations
368	Unique lead adsorption behavior of activated hydroxyl group in two-dimensional titanium carbide. <i>Journal of the American Chemical Society</i> , <b>2014</b> , 136, 4113-6	16.4	813
367	Hardness of covalent crystals. <i>Physical Review Letters</i> , <b>2003</b> , 91, 015502	7.4	742
366	Microscopic theory of hardness and design of novel superhard crystals. <i>International Journal of Refractory Metals and Hard Materials</i> , <b>2012</b> , 33, 93-106	4.1	563
365	Ultrahard nanotwinned cubic boron nitride. <i>Nature</i> , <b>2013</b> , 493, 385-8	50.4	519
364	Nanotwinned diamond with unprecedented hardness and stability. <i>Nature</i> , <b>2014</b> , 510, 250-3	50.4	440
363	Semimetallic Two-Dimensional Boron Allotrope with Massless Dirac Fermions. <i>Physical Review Letters</i> , <b>2014</b> , 112,	7.4	397
362	Ab initio investigations of optical properties of the high-pressure phases of ZnO. <i>Physical Review B</i> , <b>2005</b> , 71,	3.3	303
361	Flexible All-Solid-State Supercapacitors based on Liquid-Exfoliated Black-Phosphorus Nanoflakes. <i>Advanced Materials</i> , <b>2016</b> , 28, 3194-201	24	249
360	Novel superhard carbon: C-centered orthorhombic C8. <i>Physical Review Letters</i> , <b>2011</b> , 107, 215502	7.4	198
359	Large-Scale Synthesis of Nitrogen-Rich Carbon Nitride Microfibers by Using Graphitic Carbon Nitride as Precursor. <i>Advanced Materials</i> , <b>2008</b> , 20, 1777-1781	24	195
358	Te-Doped Black Phosphorus Field-Effect Transistors. <i>Advanced Materials</i> , <b>2016</b> , 28, 9408-9415	24	195
357	Ionicities of boron-boron bonds in B(12) icosahedra. <i>Physical Review Letters</i> , <b>2005</b> , 94, 015504	7.4	192
356	Peanut shell derived hard carbon as ultralong cycling anodes for lithium and sodium batteries. <i>Electrochimica Acta</i> , <b>2015</b> , 176, 533-541	6.7	186
355	Tetragonal allotrope of group 14 elements. <i>Journal of the American Chemical Society</i> , <b>2012</b> , 134, 12362-5	16.4	146
354	Hardness of covalent compounds: Roles of metallic component and d valence electrons. <i>Journal of Applied Physics</i> , <b>2008</b> , 104, 023503	2.5	140
353	Liquid-Exfoliated Black Phosphorous Nanosheet Thin Films for Flexible Resistive Random Access Memory Applications. <i>Advanced Functional Materials</i> , <b>2016</b> , 26, 2016-2024	15.6	137
352	Ab initio study of the formation of transparent carbon under pressure. <i>Physical Review B</i> , <b>2010</b> , 82,	3.3	108

351	Turbostratic carbon nitride prepared by pyrolysis of melamine. <i>Journal of Materials Science</i> , <b>2005</b> , 40, 2645-2647	4.3	108
350	Three dimensional carbon-nanotube polymers. <i>ACS Nano</i> , <b>2011</b> , 5, 7226-34	16.7	94
349	First-principles study of electronic structure and optical properties of heterodiamond BC2N. <i>Physical Review B</i> , <b>2006</b> , 73,	3.3	91
348	Recent Advances in Superhard Materials. <i>Annual Review of Materials Research</i> , <b>2016</b> , 46, 383-406	12.8	80
347	Compressed glassy carbon: An ultrastrong and elastic interpenetrating graphene network. <i>Science Advances</i> , <b>2017</b> , 3, e1603213	14.3	77
346	Temperature dependent elastic constants and ultimate strength of graphene and graphyne. <i>Journal of Chemical Physics</i> , <b>2012</b> , 137, 194901	3.9	76
345	Calorimetric versus kinetic glass transitions in viscous monohydroxy alcohols. <i>Journal of Chemical Physics</i> , <b>2008</b> , 128, 084503	3.9	76
344	Compressed carbon nanotubes: a family of new multifunctional carbon allotropes. <i>Scientific Reports</i> , <b>2013</b> , 3, 1331	4.9	73
343	First-principles studies of structural and electronic properties of hexagonal BC5. <i>Physical Review B</i> , <b>2006</b> , 73,	3.3	70
342	Flexible Black-Phosphorus Nanoflake/Carbon Nanotube Composite Paper for High-Performance All-Solid-State Supercapacitors. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2017</b> , 9, 44478-44484	9.5	69
341	Crystal structure and physical properties of OsN2 and PtN2 in the marcasite phase. <i>Physical Review B</i> , <b>2007</b> , 75,	3.3	69
340	Body-centered tetragonal B2N2: a novel sp3 bonding boron nitride polymorph. <i>Physical Chemistry Chemical Physics</i> , <b>2011</b> , 13, 14565-70	3.6	65
339	Predicting hardness of dense C3N4 polymorphs. <i>Applied Physics Letters</i> , <b>2006</b> , 88, 101906	3.4	64
338	Optical properties of heterodiamond B2CN using first-principles calculations. <i>Applied Physics Letters</i> , <b>2004</b> , 84, 4544-4546	3.4	64
337	Enhanced thermoelectric figure of merit in nanocrystalline Bi2Te3 bulk. <i>Journal of Applied Physics</i> , <b>2009</b> , 105, 094303	2.5	62
336	Peculiar ZnO nanopushpins and nanotubes synthesized via simple thermal evaporation. <i>Applied Physics Letters</i> , <b>2005</b> , 87, 123111	3.4	62
335	High-pressure synthesis of phonon-glass electron-crystal featured thermoelectric Li <sub>x</sub> Co <sub>4</sub> Sb <sub>12</sub> . <i>Acta Materialia</i> , <b>2012</b> , 60, 1246-1251	8.4	61
334	Superhard and superconducting structures of BC5. <i>Journal of Applied Physics</i> , <b>2010</b> , 108, 023507	2.5	60

- 333 Hierarchically structured diamond composite with exceptional toughness. *Nature*, **2020**, 582, 370-374 50.4 59
- 332 Variable cell nudged elastic band method for studying solid-solid structural phase transitions. *Computer Physics Communications*, **2013**, 184, 2111-2118 4.2 56
- 331 Most likely phase of superhard BC<sub>2</sub>N by ab initio calculations. *Physical Review B*, **2007**, 76, 3-3 54
- 330 Potential high-T<sub>c</sub> superconductivity in CaYH<sub>12</sub> under pressure. *Physical Review B*, **2019**, 99, 3-3 53
- 329 Two-Dimensional Superlattice: Modulation of Band Gaps in Graphene-Based Monolayer Carbon Superlattices. *Journal of Physical Chemistry Letters*, **2012**, 3, 3373-3378 6.4 52
- 328 Hardness of cubic spinel Si<sub>3</sub>N<sub>4</sub>. *Applied Physics Letters*, **2004**, 85, 5571-5573 3.4 50
- 327 Exotic Cubic Carbon Allotropes. *Journal of Physical Chemistry C*, **2012**, 116, 24233-24238 3.8 48
- 326 Prediction of a sandwichlike conducting superhard boron carbide: First-principles calculations. *Physical Review B*, **2006**, 73, 3-3 47
- 325 Taming the collapse of optical fields. *Scientific Reports*, **2012**, 2, 1007 4.9 45
- 324 Mechanical properties of nanocrystalline TiC<sub>x</sub>Cr solid solutions fabricated by spark plasma sintering. *Ceramics International*, **2014**, 40, 10517-10522 5.1 44
- 323 First-principles study of O-BN: A sp<sup>3</sup>-bonding boron nitride allotrope. *Journal of Applied Physics*, **2012**, 112, 053518 2.5 44
- 322 Orthorhombic B<sub>2</sub>CN crystal synthesized by high pressure and temperature. *Chemical Physics Letters*, **2001**, 340, 431-436 2.5 44
- 321 Great thermoelectric power factor enhancement of CoSb<sub>3</sub> through the lightest metal element filling. *Applied Physics Letters*, **2011**, 98, 072109 3.4 43
- 320 Superconducting high-pressure phase of platinum hydride from first principles. *Physical Review B*, **2011**, 84, 3-3 43
- 319 Approaching diamond's theoretical elasticity and strength limits. *Nature Communications*, **2019**, 10, 55337.4 43
- 318 Superhard materials: recent research progress and prospects. *Science China Materials*, **2015**, 58, 132-1427.1 42
- 317 Structural relaxation dynamics in binary glass-forming molecular liquids with ideal and complex mixing behavior. *Journal of Physical Chemistry B*, **2010**, 114, 3618-22 3.4 42
- 316 Enhanced thermoelectric properties in Co<sub>4</sub>Sb<sub>12</sub>Te<sub>x</sub> alloys prepared by HPHT. *Materials Letters*, **2009**, 63, 2139-2141 3.3 41

315	Bulk Re <sub>2</sub> C: Crystal Structure, Hardness, and Ultra-incompressibility. <i>Crystal Growth and Design</i> , <b>2010</b> , 10, 5024-5026	3.5	40
314	Mechanochemically activated synthesis of zirconium carbide nanoparticles at room temperature: A simple route to prepare nanoparticles of transition metal carbides. <i>Journal of the European Ceramic Society</i> , <b>2011</b> , 31, 1491-1496	6	40
313	Diffusion-controlled crystal growth in deeply undercooled melt on approaching the glass transition. <i>Physical Review B</i> , <b>2011</b> , 83,	3.3	40
312	First-principles study of wurtzite BC <sub>2</sub> N. <i>Physical Review B</i> , <b>2007</b> , 76,	3.3	40
311	Lateral Bilayer MoS <sub>2</sub> /WS <sub>2</sub> Heterostructure Photodetectors with High Responsivity and Detectivity. <i>Advanced Optical Materials</i> , <b>2019</b> , 7, 1900815	8.1	39
310	Compressive Strength of Diamond from First-Principles Calculation. <i>Journal of Physical Chemistry C</i> , <b>2010</b> , 114, 17851-17853	3.8	38
309	Temperature dependent elastic constants for crystals with arbitrary symmetry: Combined first principles and continuum elasticity theory. <i>Journal of Applied Physics</i> , <b>2012</b> , 111, 083525	2.5	37
308	Crystal structure and stability of magnesium borohydride from first principles. <i>Physical Review B</i> , <b>2009</b> , 79,	3.3	37
307	Chalcopyrite polymorph for superhard BC <sub>2</sub> N. <i>Applied Physics Letters</i> , <b>2006</b> , 89, 151911	3.4	37
306	Bond ionicities and hardness of B <sub>13</sub> C <sub>2</sub> -like structured ByX crystals (X=C,N,O,P,As). <i>Physical Review B</i> , <b>2006</b> , 73,	3.3	37
305	High pressure synthesized Ca-filled CoSb <sub>3</sub> skutterudites with enhanced thermoelectric properties. <i>Journal of Alloys and Compounds</i> , <b>2016</b> , 677, 61-65	5.7	37
304	Semiconducting Superhard Ruthenium Monocarbide. <i>Journal of Physical Chemistry C</i> , <b>2010</b> , 114, 9961-9968	3.8	36
303	A Universal Criterion for metallic glass formation. <i>Applied Physics Letters</i> , <b>2012</b> , 100, 261913	3.4	36
302	Structure and mechanical properties of osmium carbide: First-principles calculations. <i>Applied Physics Letters</i> , <b>2008</b> , 93, 041904	3.4	36
301	Phase transformation of melamine at high pressure and temperature. <i>Journal of Materials Science</i> , <b>2008</b> , 43, 689-695	4.3	35
300	Theoretical hardness of the cubic BC <sub>2</sub> N. <i>Diamond and Related Materials</i> , <b>2007</b> , 16, 526-530	3.5	33
299	Investigation of skutterudite MgyCo <sub>4</sub> Sb <sub>12</sub> : High pressure synthesis and thermoelectric properties. <i>Journal of Applied Physics</i> , <b>2013</b> , 113, 113703	2.5	32
298	Refined Crystal Structure and Mechanical Properties of Superhard BC <sub>4</sub> N Crystal: First-Principles Calculations. <i>Journal of Physical Chemistry C</i> , <b>2008</b> , 112, 9516-9519	3.8	32

- 297 Ultrahardness: Measurement and Enhancement. *Journal of Physical Chemistry C*, **2015**, 119, 5633-5638 3.8 31
- 296 Sodium doped polycrystalline SnSe: High pressure synthesis and thermoelectric properties. *Journal of Alloys and Compounds*, **2017**, 727, 1014-1019 5.7 31
- 295 Prediction of a Three-Dimensional Conductive Superhard Material: Diamond-like BC<sub>2</sub>. *Journal of Physical Chemistry C*, **2010**, 114, 22688-22690 3.8 31
- 294 A superhard sp<sup>3</sup> microporous carbon with direct bandgap. *Chemical Physics Letters*, **2017**, 689, 68-73 2.5 29
- 293 Enhanced thermoelectric performance of AgSbTe<sub>2</sub> synthesized by high pressure and high temperature. *Journal of Applied Physics*, **2009**, 105, 073713 2.5 29
- 292 Atomically Resolving Polymorphs and Crystal Structures of In<sub>2</sub>Se<sub>3</sub>. *Chemistry of Materials*, **2019**, 31, 10143-10149 3.6 29
- 291 Regulating Polymerization in Graphitic Carbon Nitride To Improve Photocatalytic Activity. *Chemistry of Materials*, **2019**, 31, 9188-9199 9.6 28
- 290 Bulk modulus for polar covalent crystals. *Scientific Reports*, **2013**, 3, 3068 4.9 28
- 289 A tetragonal phase of superhard BC<sub>2</sub>N. *Journal of Applied Physics*, **2009**, 105, 093521 2.5 28
- 288 Body-centered superhard BC<sub>2</sub>N phases from first principles. *Physical Review B*, **2007**, 76, 3-3 28
- 287 Unusual compression behavior of TiO<sub>2</sub> polymorphs from first principles. *Physical Review B*, **2010**, 82, 3-3 27
- 286 Glass transition in binary eutectic systems: best glass-forming composition. *Journal of Physical Chemistry B*, **2010**, 114, 12080-4 3.4 27
- 285 Direct Observation of Room-Temperature Dislocation Plasticity in Diamond. *Matter*, **2020**, 2, 1222-1232 12.7 26
- 284 Degradable magnesium-based implant materials with anti-inflammatory activity. *Journal of Biomedical Materials Research - Part A*, **2013**, 101, 1898-906 5.4 26
- 283 Study on hot deformation behavior of 12%Cr ultra-super-critical rotor steel. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2008**, 487, 108-113 5.3 25
- 282 Cubic-C<sub>3</sub>N<sub>4</sub> nanoparticles synthesized in CN<sub>x</sub>/TiN<sub>x</sub> multilayer films. *Chemical Physics Letters*, **2001**, 334, 7-11 2.5 25
- 281 High-T<sub>c</sub> directly coupled direct current SQUID gradiometer with flip-chip flux transformer. *Applied Physics Letters*, **1999**, 74, 1302-1304 3.4 25
- 280 High pressure synthesis and thermoelectric properties of polycrystalline Bi<sub>2</sub>Se<sub>3</sub>. *Journal of Alloys and Compounds*, **2017**, 700, 223-227 5.7 24

279	Amorphous silicoboron carbonitride monoliths resistant to flowing air up to 1800 °C. <i>Corrosion Science</i> , <b>2016</b> , 109, 162-173	6.8	24
278	Synthesis of iodine filled CoSb <sub>3</sub> with extremely low thermal conductivity. <i>Journal of Alloys and Compounds</i> , <b>2014</b> , 615, 177-180	5.7	24
277	Fabrication of multifunctional carbon encapsulated Ni@NiO nanocomposites for oxygen reduction, oxygen evolution and lithium-ion battery anode materials. <i>Science China Materials</i> , <b>2017</b> , 60, 947-954	7.1	24
276	Dislocation behaviors in nanotwinned diamond. <i>Science Advances</i> , <b>2018</b> , 4, eaat8195	14.3	24
275	Structure and thermoelectric properties of Se- and Se/Te-doped CoSb <sub>3</sub> skutterudites synthesized by high-pressure technique. <i>Journal of Alloys and Compounds</i> , <b>2015</b> , 647, 295-302	5.7	23
274	Is orthorhombic iron tetraboride superhard?. <i>Journal of Materiomics</i> , <b>2015</b> , 1, 45-51	6.7	23
273	Dielectric relaxation of long-chain glass-forming monohydroxy alcohols. <i>Journal of Chemical Physics</i> , <b>2013</b> , 139, 164504	3.9	23
272	Superstructural nanodomains of ordered carbon vacancies in nonstoichiometric ZrC <sub>0.61</sub> . <i>Journal of Materials Research</i> , <b>2012</b> , 27, 1230-1236	2.5	23
271	On ageing and critical thickness of YBa <sub>2</sub> Cu <sub>3</sub> O <sub>7</sub> films on Si with CeO <sub>2</sub> /YSZ buffer layers. <i>Thin Solid Films</i> , <b>1999</b> , 338, 224-230	2.2	23
270	Superhard superstrong carbon clathrate. <i>Carbon</i> , <b>2016</b> , 105, 151-155	10.4	23
269	High-pressure behaviors of carbon nanotubes. <i>Journal of Superhard Materials</i> , <b>2012</b> , 34, 371-385	0.9	22
268	Spark plasma sintering of the nonstoichiometric ultrafine-grained titanium carbides with nano superstructural domains of the ordered carbon vacancies. <i>Materials Chemistry and Physics</i> , <b>2011</b> , 130, 352-360	4.4	22
267	Application of hard ceramic materials B <sub>4</sub> C in energy storage: Design B <sub>4</sub> C@C core-shell nanoparticles as electrodes for flexible all-solid-state micro-supercapacitors with ultrahigh cyclability. <i>Nano Energy</i> , <b>2020</b> , 75, 104947	17.1	21
266	Antiferromagnetic interlayer coupling in Pt/Co multilayers with perpendicular anisotropy. <i>Physical Review B</i> , <b>2009</b> , 79,	3.3	21
265	Magnetic frustration effect in polycrystalline Ga <sub>2</sub> Fe <sub>x</sub> O <sub>3</sub> . <i>Journal of Magnetism and Magnetic Materials</i> , <b>2010</b> , 322, 3595-3600	2.8	21
264	Potential superhard cubic spinel CSi <sub>2</sub> N <sub>4</sub> : First-principles investigations. <i>Journal of Applied Physics</i> , <b>2008</b> , 103, 083533	2.5	21
263	Tearing, folding and deformation of a carbon-carbon sp <sup>2</sup> -bonded network. <i>Carbon</i> , <b>2006</b> , 44, 1544-1547	10.4	21
262	First-principles study of B <sub>2</sub> CN crystals deduced from the diamond structure. <i>Journal of Physics Condensed Matter</i> , <b>2004</b> , 16, 8131-8138	1.8	21

261	Large area, low microwave surface resistance thin films of YBa <sub>2</sub> Cu <sub>3</sub> O <sub>7</sub> prepared by pulsed laser ablation. <i>Physica C: Superconductivity and Its Applications</i> , <b>1994</b> , 220, 114-118	1.3	21
260	Preparation of large-area high-quality YBCO thin films by pulsed laser deposition with Si heater and composite scanning of laser and target. <i>Journal of Superconductivity and Novel Magnetism</i> , <b>1993</b> , 6, 335-337		21
259	Metallic layered germanium phosphide GeP <sub>5</sub> for high rate flexible all-solid-state supercapacitors. <i>Journal of Materials Chemistry A</i> , <b>2018</b> , 6, 19409-19416	13	21
258	Enhanced thermoelectric performance of Na-doped PbTe synthesized under high pressure. <i>Science China Materials</i> , <b>2018</b> , 61, 1218-1224	7.1	20
257	Effect of backward extrusion on microstructure and mechanical properties of Mg <sub>92</sub> Co <sub>8</sub> based alloy. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , <b>2012</b> , 532, 443-448	5.3	20
256	Prediction of a superconductive superhard material: Diamond-like BC <sub>7</sub> . <i>Journal of Applied Physics</i> , <b>2011</b> , 110, 013501	2.5	20
255	First-principles study of atomic oxygen adsorption on boron-substituted graphite. <i>Surface Science</i> , <b>2008</b> , 602, 37-45	1.8	20
254	Large-area YBCO films for device fabrication. <i>Superconductor Science and Technology</i> , <b>1998</b> , 11, 59-62	3.1	20
253	A new phase from compression of carbon nanotubes with anisotropic Dirac fermions. <i>Scientific Reports</i> , <b>2015</b> , 5, 10713	4.9	19
252	Optically uniaxial left-handed materials. <i>Physical Review B</i> , <b>2005</b> , 72,	3.3	19
251	Role of plastic deformation in tailoring ultrafine microstructure in nanotwinned diamond for enhanced hardness. <i>Science China Materials</i> , <b>2017</b> , 60, 178-185	7.1	18
250	Enhanced thermoelectric performance of lanthanum filled CoSb <sub>3</sub> synthesized under high pressure. <i>Journal of Alloys and Compounds</i> , <b>2017</b> , 699, 751-755	5.7	18
249	Calorimetric determination of fragility in glass forming liquids: T(f) vs. T(g-onset) methods. <i>European Physical Journal E</i> , <b>2014</b> , 37, 7	1.5	18
248	Structural and thermoelectric characterizations of high pressure sintered nanocrystalline Bi <sub>2</sub> Te <sub>3</sub> bulks. <i>Materials Research Bulletin</i> , <b>2012</b> , 47, 1432-1437	5.1	18
247	Intensive suppression of thermal conductivity in Nd <sub>0.6</sub> Fe <sub>2</sub> Co <sub>2</sub> Sb <sub>12-x</sub> Gex through spontaneous precipitates. <i>Journal of Applied Physics</i> , <b>2013</b> , 114, 083715	2.5	18
246	Unbinding force of chemical bonds and tensile strength in strong crystals. <i>Journal of Physics Condensed Matter</i> , <b>2009</b> , 21, 485405	1.8	18
245	Preparation of CN <sub>x</sub> /TiN <sub>y</sub> multilayers by ion beam sputtering. <i>Journal of Crystal Growth</i> , <b>2001</b> , 233, 303-311		18
244	Novel three-dimensional boron nitride allotropes from compressed nanotube bundles. <i>Journal of Materials Chemistry C</i> , <b>2014</b> , 2, 7022	7.1	17



243	Gadolinium filled CoSb <sub>3</sub> : High pressure synthesis and thermoelectric properties. <i>Materials Letters</i> , <b>2013</b> , 98, 171-173	3.3	17
242	Highly Dense Amorphous Si <sub>2</sub> BC <sub>3</sub> N Monoliths with Excellent Mechanical Properties Prepared by High Pressure Sintering. <i>Journal of the American Ceramic Society</i> , <b>2015</b> , 98, 3782-3787	3.8	17
241	Carbonaceous photonic crystals as ultralong cycling anodes for lithium and sodium batteries. <i>Journal of Materials Chemistry A</i> , <b>2015</b> , 3, 13786-13793	13	17
240	Temperature and pressure dependent geometry optimization and elastic constant calculations for arbitrary symmetry crystals: Applications to MgSiO <sub>3</sub> perovskites. <i>Journal of Applied Physics</i> , <b>2013</b> , 113, 103501	2.5	17
239	Formation, structure, and electric property of CaB <sub>4</sub> single crystal synthesized under high pressure. <i>Applied Physics Letters</i> , <b>2010</b> , 96, 031903	3.4	17
238	Comment on "Hardness of covalent and ionic crystals: first-principle calculations". <i>Physical Review Letters</i> , <b>2007</b> , 98, 109601; discussion 109602	7.4	17
237	Correlation between distribution of outgrowths and microwave surface resistance for YBa <sub>2</sub> Cu <sub>3</sub> O <sub>7</sub> thin films. <i>Applied Physics Letters</i> , <b>1994</b> , 65, 2356-2358	3.4	17
236	Microstructure and properties of YBa <sub>2</sub> Cu <sub>3</sub> O <sub>7</sub> thin films with BaO precipitates. <i>Applied Physics Letters</i> , <b>1994</b> , 65, 234-236	3.4	17
235	Continuous strengthening in nanotwinned diamond. <i>Npj Computational Materials</i> , <b>2019</b> , 5,	10.9	17
234	Direct large-scale fabrication of C-encapsulated B <sub>4</sub> C nanoparticles with tunable dielectric properties as excellent microwave absorbers. <i>Carbon</i> , <b>2019</b> , 148, 504-511	10.4	16
233	Predicting the ground-state structure of sodium boride. <i>Physical Review B</i> , <b>2018</b> , 97,	3.3	16
232	First-principles study of crystal structures and superconductivity of ternary YSH <sub>6</sub> and LaSH <sub>6</sub> at high pressures. <i>Physical Review B</i> , <b>2019</b> , 100,	3.3	16
231	Carbon coated face-centered cubic Ru-C nanoalloys. <i>Nanoscale</i> , <b>2014</b> , 6, 10370-6	7.7	16
230	Non-exponentiality of structural relaxations in glass forming metallic liquids. <i>Journal of Alloys and Compounds</i> , <b>2010</b> , 504, S201-S204	5.7	16
229	Novel High-Pressure Phase of RhB: First-Principles Calculations. <i>Journal of Physical Chemistry C</i> , <b>2011</b> , 115, 19910-19915	3.8	16
228	Lattice, magnetic and transport properties in antiperovskite compounds. <i>Solid State Communications</i> , <b>2009</b> , 149, 1519-1522	1.6	16
227	Material removal mechanism of precision grinding of soft-brittle CdZnTe wafers. <i>International Journal of Advanced Manufacturing Technology</i> , <b>2010</b> , 46, 563-569	3.2	16
226	Synthesis of Semimetallic BC <sub>3</sub> .3N with Orthorhombic Structure at High Pressure and Temperature. <i>Crystal Growth and Design</i> , <b>2008</b> , 8, 2096-2100	3.5	16

225	Carbon-rich boron carbide in the eutectic product synthesized by resistance heating of B <sub>2</sub> CN in graphite. <i>Journal of Alloys and Compounds</i> , <b>2007</b> , 437, 238-246	5.7	16
224	Total transmission of electromagnetic waves at interfaces associated with an indefinite medium. <i>Journal of the Optical Society of America B: Optical Physics</i> , <b>2006</b> , 23, 904	1.7	16
223	Microstructure of outgrowths on the surface of laser-ablated YBa <sub>2</sub> Cu <sub>3</sub> O <sub>7</sub> thin films. <i>Physica C: Superconductivity and Its Applications</i> , <b>1995</b> , 241, 30-36	1.3	16
222	Discovery of carbon-based strongest and hardest amorphous material.. <i>National Science Review</i> , <b>2022</b> , 9, nwab140	10.8	16
221	Predicting three-dimensional icosahedron-based boron B <sub>60</sub> . <i>Physical Review B</i> , <b>2019</b> , 99,	3.3	15
220	Magnetic borophenes from an evolutionary search. <i>Physical Review B</i> , <b>2019</b> , 99,	3.3	15
219	Mechanical polishing of ultrahard nanotwinned diamond via transition into hard sp <sup>2</sup> -sp <sup>3</sup> amorphous carbon. <i>Carbon</i> , <b>2020</b> , 161, 1-6	10.4	15
218	Enhanced Stability of Black Phosphorus Field-Effect Transistors via Hydrogen Treatment. <i>Advanced Electronic Materials</i> , <b>2018</b> , 4, 1700455	6.4	15
217	Glass transition and mixing thermodynamics of a binary eutectic system. <i>Physical Chemistry Chemical Physics</i> , <b>2014</b> , 16, 3586-92	3.6	15
216	Prediction of Novel SiCN Compounds: First-Principles Calculations. <i>Journal of Physical Chemistry C</i> , <b>2013</b> , 117, 21943-21948	3.8	15
215	Thermoelectric properties of Sm <sub>x</sub> Co <sub>4</sub> Sb <sub>12</sub> prepared by high pressure and high temperature. <i>Journal of Alloys and Compounds</i> , <b>2010</b> , 493, 535-538	5.7	15
214	HPHT synthesis and thermoelectric properties of CoSb <sub>3</sub> and Fe <sub>0.6</sub> Co <sub>3.4</sub> Sb <sub>12</sub> skutterudites. <i>Journal of Alloys and Compounds</i> , <b>2009</b> , 480, 882-884	5.7	15
213	Infrared and Raman spectra of B <sub>2</sub> CN from first principles calculations. <i>Physical Review B</i> , <b>2006</b> , 74,	3.3	15
212	A study of the electrical properties of HgS under high pressure. <i>Journal of Physics Condensed Matter</i> , <b>2007</b> , 19, 425222	1.8	15
211	Superhard three-dimensional B <sub>3</sub> N <sub>4</sub> with two-dimensional metallicity. <i>Journal of Materials Chemistry C</i> , <b>2017</b> , 5, 5897-5901	7.1	14
210	Photoluminescence and Raman Spectra Oscillations Induced by Laser Interference in Annealing-Created Monolayer WS <sub>2</sub> Bubbles. <i>Advanced Optical Materials</i> , <b>2019</b> , 7, 1801373	8.1	14
209	Thermoelectric properties of Sn substituted p-type Nd filled skutterudites. <i>Journal of Alloys and Compounds</i> , <b>2015</b> , 639, 68-73	5.7	14
208	Iodine-filled Fe <sub>x</sub> Co <sub>4-x</sub> Sb <sub>12</sub> polycrystals: Synthesis, structure, and thermoelectric properties. <i>Materials Letters</i> , <b>2015</b> , 139, 249-251	3.3	14

207	Structural and thermoelectric characterizations of samarium filled CoSb <sub>3</sub> skutterudites. <i>Materials Letters</i> , <b>2015</b> , 143, 41-43	3.3	14
206	C60 on Nanostructured Nb-Doped SrTiO <sub>3</sub> (001) Surfaces. <i>Journal of Physical Chemistry C</i> , <b>2010</b> , 114, 3416-3421	3.4	14
205	Anomalous component dynamics of a binary mixture of associating glass-forming liquids. <i>Journal of Physical Chemistry B</i> , <b>2011</b> , 115, 719-24	3.4	14
204	Hardness of $\beta$ and $\beta$ -Si <sub>3</sub> CnN <sub>4</sub> (n=0, 1, 2, 3) crystals. <i>Diamond and Related Materials</i> , <b>2009</b> , 18, 72-75	3.5	14
203	First-principle study of electronic properties of Ti <sub>3</sub> Si <sub>1-x</sub> Al <sub>x</sub> C <sub>2</sub> solid solutions. <i>Journal of Physics and Chemistry of Solids</i> , <b>2008</b> , 69, 1356-1361	3.9	14
202	Conductivity of AgI under high pressure. <i>Journal of Applied Physics</i> , <b>2007</b> , 101, 053701	2.5	14
201	Si <sub>10</sub> : A sp <sup>3</sup> Silicon Allotrope with Spirally Connected Si <sub>5</sub> Tetrahedrons. <i>Chemistry of Materials</i> , <b>2016</b> , 28, 6441-6445	9.6	14
200	Multithreaded conductive carbon: 1D conduction in 3D carbon. <i>Carbon</i> , <b>2017</b> , 115, 584-588	10.4	13
199	High pressure synthesis of Te-doped CoSb <sub>3</sub> with enhanced thermoelectric performance. <i>Journal of Materials Science: Materials in Electronics</i> , <b>2015</b> , 26, 385-391	2.1	13
198	Enhanced thermoelectric performance of high pressure synthesized Sb-doped Mg <sub>2</sub> Si. <i>Journal of Alloys and Compounds</i> , <b>2018</b> , 741, 1148-1152	5.7	13
197	An ab initio study on the transition paths from graphite to diamond under pressure. <i>Journal of Physics Condensed Matter</i> , <b>2013</b> , 25, 145402	1.8	13
196	Strain Release Induced Novel Fluorescence Variation in CVD-Grown Monolayer WS Crystals. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2017</b> , 9, 34071-34077	9.5	13
195	Crystallization Behavior of Amorphous Si <sub>2</sub> BC <sub>3</sub> N Ceramic Monolith Subjected to High Pressure. <i>Journal of the American Ceramic Society</i> , <b>2015</b> , 98, 3788-3796	3.8	13
194	Dependence of glass forming ability on liquid fragility: Thermodynamics versus kinetics. <i>Applied Physics Letters</i> , <b>2010</b> , 97, 181901	3.4	13
193	Component dynamics in miscible mixtures of water and methanol. <i>Journal of Physical Chemistry B</i> , <b>2011</b> , 115, 8242-8	3.4	13
192	Oscillatory antiferromagnetic interlayer coupling in Co(4)Pt(tPt)[Co(4)Pt(6)Co(4)]NiO(20) multilayers with perpendicular anisotropy. <i>Physical Review B</i> , <b>2008</b> , 77,	3.3	13
191	Structural evolution of turbostratic carbon nitride after being treated with a pulse discharge. <i>Diamond and Related Materials</i> , <b>2005</b> , 14, 1700-1704	3.5	13
190	Specific heat and related thermodynamic properties of an undercooled germanium melt. <i>Applied Physics Letters</i> , <b>2004</b> , 85, 558-560	3.4	13

- 189 Prediction of high-T<sub>c</sub> superconductivity in ternary lanthanum borohydrides. *Physical Review B*, **2021**, 104, 3-3 13
- 188 Covalent-bonded graphyne polymers with high hardness. *Journal of Superhard Materials*, **2014**, 36, 257-269 12
- 187 {111}-specific twinning structures in nonstoichiometric ZrC<sub>0.6</sub> with ordered carbon vacancies. *Journal of Applied Crystallography*, **2013**, 46, 43-47 3.8 12
- 186 Preparation of pure  $\beta$ -phase titanium alloys with low moduli via high pressure solution treatment. *Journal of Alloys and Compounds*, **2017**, 695, 45-51 5.7 12
- 185 Low-temperature diffusion of oxygen through ordered carbon vacancies in Zr<sub>2</sub>C(x): the formation of ordered Zr<sub>2</sub>C(x)O(y). *Inorganic Chemistry*, **2012**, 51, 5164-72 5.1 12
- 184 Unusual dielectric strength of Debye relaxation in monohydroxy alcohols upon mixing. *Journal of Physical Chemistry B*, **2012**, 116, 11482-7 3.4 12
- 183 Kinetic fragility of binary and ternary glass forming liquid mixtures. *European Physical Journal E*, **2011**, 34, 86 1.5 12
- 182 Ground-state properties and hardness of high density BC<sub>6</sub>N phases originating from diamond structure. *Journal of Applied Physics*, **2007**, 101, 083505 2.5 12
- 181 Effect of structure and morphology on resistive loss at 10 GHz of the large-area laser-deposited YBa<sub>2</sub>Cu<sub>3</sub>O<sub>7</sub> thin films. *Journal of Applied Physics*, **1995**, 77, 1165-1170 2.5 12
- 180 High Pressure Synthesis of p-Type CeFeCoSb Skutterudites. *Materials*, **2016**, 9, 3-5 12
- 179 Coexistence of multiple metastable polytypes in rhombohedral bismuth. *Scientific Reports*, **2016**, 6, 20337 3.9 12
- 178 High pressure synthesis and thermoelectric properties of Ba-filled CoSb<sub>3</sub> skutterudites. *Journal of Materials Science: Materials in Electronics*, **2017**, 28, 8771-8776 2.1 11
- 177 Anomaly in dielectric relaxation dispersion of glass-forming alkoxy alcohols. *Journal of Chemical Physics*, **2015**, 142, 214505 3.9 11
- 176 Secondary relaxation dynamics in rigid glass-forming molecular liquids with related structures. *Journal of Chemical Physics*, **2015**, 143, 104505 3.9 11
- 175 Annealing-Induced {011}-Specific Cyclic Twins in Tetragonal Zirconia Nanoparticles. *Journal of Physical Chemistry C*, **2012**, 116, 21052-21058 3.8 11
- 174 Microstructures, aging behaviour and mechanical properties in hydrogen and chloride media of backward extruded Mg-Y based biomaterials. *Journal of the Mechanical Behavior of Biomedical Materials*, **2013**, 17, 176-85 4.1 11
- 173 Debye-type dielectric relaxation in glass-forming 3-methylthio-1-hexanol. *Journal of Chemical Physics*, **2013**, 139, 024503 3.9 11
- 172 Universal phase transitions of B1-structured stoichiometric transition metal carbides. *Inorganic Chemistry*, **2011**, 50, 9266-72 5.1 11

171	CaB6 single crystals grown under high pressure and hightemperature. <i>Journal of Crystal Growth</i> , <b>2010</b> , 313, 47-50	1.6	11
170	Thermal behavior of the interlayer coupling in a spin-valve Co/Pt multilayer with perpendicular anisotropy. <i>Journal of Applied Physics</i> , <b>2008</b> , 104, 113903	2.5	11
169	First-Principles Investigation of Dense B4C3. <i>Journal of Physical Chemistry C</i> , <b>2007</b> , 111, 13679-13683	3.8	11
168	Synthesis of graphite-C3N4 crystal by ion beam sputtering. <i>Journal of Materials Science Letters</i> , <b>2000</b> , 19, 553-556		11
167	Grain-boundary-rich polycrystalline monolayer WS film for attomolar-level Hg sensors. <i>Nature Communications</i> , <b>2021</b> , 12, 3870	17.4	11
166	New hexagonal boron nitride polytypes with triple-layer periodicity. <i>Journal of Applied Physics</i> , <b>2017</b> , 121, 165102	2.5	10
165	High-temperature oxidation resistance of dense amorphous boron-rich SiBCN monoliths. <i>Corrosion Science</i> , <b>2019</b> , 157, 312-323	6.8	10
164	Role of boron addition on phase composition, microstructural evolution and mechanical properties of nanocrystalline SiBCN monoliths. <i>Journal of the European Ceramic Society</i> , <b>2018</b> , 38, 1179-1189	6	10
163	Layered porous materials indium triphosphide InP3 for high-performance flexible all-solid-state supercapacitors. <i>Journal of Power Sources</i> , <b>2019</b> , 438, 227010	8.9	10
162	Tian et al. reply. <i>Nature</i> , <b>2013</b> , 502, E2-3	50.4	10
161	Distinct C60 growth modes on anthracene carboxylic acid templates. <i>Applied Physics Letters</i> , <b>2010</b> , 96, 143115	3.4	10
160	?Dielectric relaxation dynamics in glass-forming mixtures of propanediol isomers. <i>Physical Review E</i> , <b>2010</b> , 82, 062502	2.4	10
159	The thermal expansion of a highly crystalline hexagonal BC2N compound synthesized under high temperature and pressure. <i>Journal of Physics Condensed Matter</i> , <b>2006</b> , 18, 9519-9524	1.8	10
158	Structural and superconducting properties of Ca-doped MgB2superconductors. <i>Superconductor Science and Technology</i> , <b>2007</b> , 20, 261-266	3.1	10
157	Communication: Enthalpy relaxation in a metal-organic zeolite imidazole framework (ZIF-4) glass-former. <i>Journal of Chemical Physics</i> , <b>2017</b> , 146, 121101	3.9	9
156	Deep melting reveals liquid structural memory and anomalous ferromagnetism in bismuth. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2017</b> , 114, 3375-3380	11.5	9
155	Small onion-like BN leads to ultrafine-twinned cubic BN. <i>Science China Materials</i> , <b>2019</b> , 62, 1169-1176	7.1	9
154	Unveiling the dependence of glass transitions on mixing thermodynamics in miscible systems. <i>Scientific Reports</i> , <b>2015</b> , 5, 8500	4.9	9

153	Effects of high pressure on the low-temperature sintering of dense amorphous SiBCN monoliths. <i>Journal of the European Ceramic Society</i> , <b>2018</b> , 38, 3777-3786	6	9
152	Enhanced thermoelectric performance of bismuth-doped magnesium silicide synthesized under high pressure. <i>Journal of Materials Science</i> , <b>2018</b> , 53, 9091-9098	4.3	9
151	Discovery of superhard materials via CALYPSO methodology. <i>Chinese Physics B</i> , <b>2019</b> , 28, 106104	1.2	9
150	Metastable adaptive orthorhombic martensite in zirconia nanoparticles. <i>Journal of Applied Crystallography</i> , <b>2014</b> , 47, 684-691	3.8	9
149	Superhard and superconducting B6C. <i>Materials Today Physics</i> , <b>2017</b> , 3, 76-84	8	9
148	Formation and properties of SrB6 single crystals synthesized under high pressure and temperature. <i>Journal of Alloys and Compounds</i> , <b>2011</b> , 509, 7927-7930	5.7	9
147	Large shear strength enhancement of gamma-boron by normal compression. <i>Journal of Superhard Materials</i> , <b>2011</b> , 33, 401-408	0.9	9
146	Drastic time-dependent decrease in the saturation magnetization observed in Pd/Co/Pd trilayers with perpendicular anisotropy. <i>Journal of Applied Physics</i> , <b>2010</b> , 107, 123912	2.5	9
145	Thermally induced antiferromagnetic interlayer coupling and its oscillatory dependence on repetition number in spin-valve Co/Pt multilayers. <i>Journal Physics D: Applied Physics</i> , <b>2009</b> , 42, 035010	3	9
144	Proper scaling of the anomalous Hall effect in the Co/Pt multilayers. <i>Journal of Applied Physics</i> , <b>2011</b> , 110, 033921	2.5	9
143	Decrease of Tc and persistent two gaps upon enhancement of the Ca doping in MgB2 superconductor. <i>Applied Physics Letters</i> , <b>2007</b> , 90, 052507	3.4	9
142	Diamond-like BC3as a superhard conductor identified by ideal strength calculations. <i>Journal of Physics Condensed Matter</i> , <b>2007</b> , 19, 346223	1.8	9
141	High pressure synthesis of nanotwinned ultrahard materials. <i>Wuli Xuebao/Acta Physica Sinica</i> , <b>2017</b> , 66, 036201	0.6	9
140	Glass formation in narrow band-gap SnTe-based chalcogenide systems. <i>Materials Letters</i> , <b>2017</b> , 194, 149-151	3.5	8
139	Grain wall boundaries in centimeter-scale continuous monolayer WS film grown by chemical vapor deposition. <i>Nanotechnology</i> , <b>2018</b> , 29, 255705	3.4	8
138	High-pressure phases of NaAlH4 from first principles. <i>Applied Physics Letters</i> , <b>2012</b> , 100, 061905	3.4	8
137	First-principle calculation on structures and properties of diamond-like B3C10N3 compound. <i>Journal of Alloys and Compounds</i> , <b>2009</b> , 481, 855-857	5.7	8
136	Effect of magnetic field on domain-wall structures in two antiferromagnetically coupled CoPt multilayers. <i>Applied Physics Letters</i> , <b>2008</b> , 93, 032502	3.4	8

135	Synthesis of B <sub>11</sub> C nanocrystalline particle by mechanical alloying and spark plasma sintering. <i>Journal of Materials Science</i> , <b>2006</b> , 41, 8352-8355	4.3	8
134	Chemical bond properties and Mössbauer spectroscopy in REBa <sub>2</sub> Cu <sub>3</sub> O <sub>7</sub> (RE=Eu, Y). <i>Physica C: Superconductivity and Its Applications</i> , <b>2002</b> , 371, 151-155	1.3	8
133	Chemical synthesis of crystalline hexagonal B-C-N compound. <i>Journal of Materials Science Letters</i> , <b>2000</b> , 19, 2061-2063		8
132	Microstructural features at the interface between laser ablated YBa <sub>2</sub> Cu <sub>3</sub> O <sub>7</sub> films and LaAlO <sub>3</sub> substrates. <i>Applied Physics Letters</i> , <b>1995</b> , 66, 3356-3358	3.4	8
131	The effect of laser energy density and target-substrate distance on the quality of YBa <sub>2</sub> Cu <sub>3</sub> O <sub>7</sub> -x thin films. <i>Superconductor Science and Technology</i> , <b>1994</b> , 7, 435-437	3.1	8
130	Intersectional nanotwinned diamond-the hardest polycrystalline diamond by design. <i>Npj Computational Materials</i> , <b>2020</b> , 6,	10.9	8
129	Porous bismuth antimony telluride alloys with excellent thermoelectric and mechanical properties. <i>Journal of Materials Chemistry A</i> , <b>2021</b> , 9, 4990-4999	13	8
128	Preparation of dense B <sub>4</sub> C ceramics by spark plasma sintering of high-purity nanoparticles. <i>Journal of the European Ceramic Society</i> , <b>2021</b> , 41, 3929-3936	6	8
127	Effect of layer and stacking sequence in simultaneously grown 2H and 3R WS atomic layers. <i>Nanotechnology</i> , <b>2019</b> , 30, 345203	3.4	7
126	One-Step Growth of Spatially Graded MoW S Monolayers with a Wide Span in Composition (from x = 0 to 1) at a Large Scale. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2019</b> , 11, 20979-20986	9.5	7
125	Accelerated Degradation of CrCl <sub>3</sub> Nanoflakes Induced by Metal Electrodes: Implications for Remediation in Nanodevice Fabrication. <i>ACS Applied Nano Materials</i> , <b>2019</b> , 2, 1597-1603	5.6	7
124	Enhancement of thermoelectric performance of Al doped PbTe-PbSe due to carrier concentration optimization and alloying. <i>Journal of Alloys and Compounds</i> , <b>2019</b> , 791, 786-791	5.7	7
123	Novel superhard boron-rich nitrides under pressure. <i>Science China Materials</i> , <b>2020</b> , 63, 2358-2364	7.1	7
122	Boron-dependent microstructural evolution, thermal stability, and crystallization of mechanical alloying derived SiBCN. <i>Journal of the American Ceramic Society</i> , <b>2018</b> , 101, 3205-3221	3.8	7
121	High pressure synthesis of p-type Fe-substituted CoSb <sub>3</sub> skutterudites. <i>Journal of Materials Science: Materials in Electronics</i> , <b>2016</b> , 27, 6433-6437	2.1	7
120	Effects of cerium on microstructures, recovery behavior and mechanical properties of backward extruded Mg <sub>0.5</sub> Mn alloys. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , <b>2013</b> , 564, 310-316	5.3	7
119	Thermoelectric properties of n-type CoSb <sub>3</sub> fabricated with high pressure sintering. <i>Journal of Alloys and Compounds</i> , <b>2010</b> , 503, 490-493	5.7	7
118	Prediction of graphitelike BC <sub>4</sub> N from first-principles calculations. <i>Journal of Applied Physics</i> , <b>2009</b> , 105, 043509	2.5	7

117	Structural and magnetic characterization of rhombohedral Ga <sub>1.2</sub> Fe <sub>0.8</sub> O <sub>3</sub> ceramics prepared by high-pressure synthesis. <i>Solid State Communications</i> , <b>2011</b> , 151, 33-36	1.6	7
116	Investigations on the interlayer coupling in Co/Pt multilayers with perpendicular anisotropy via the extraordinary Hall effect. <i>Thin Solid Films</i> , <b>2011</b> , 519, 1980-1984	2.2	7
115	Prediction of a conducting hard ductile cubic IrC. <i>Physica Status Solidi - Rapid Research Letters</i> , <b>2010</b> , 4, 230-232	2.5	7
114	Study of the phase diagram and continuous cooling transformation of 12%Cr ultra-super-critical rotor steel. <i>Materials Characterization</i> , <b>2008</b> , 59, 1133-1136	3.9	7
113	Solvent-free synthesis of crystalline carbon nitride compounds. <i>Journal of Alloys and Compounds</i> , <b>2008</b> , 455, 303-307	5.7	7
112	Noncollinear interlayer coupling and its effect on exchange bias in Co(32)/NiO(tNiO)/[Co(4)/Pt(6)] <sub>4</sub> /Pt(50) multilayers. <i>Journal of Magnetism and Magnetic Materials</i> , <b>2007</b> , 309, 176-182	2.8	7
111	Development of an ultrahard nanotwinned cBN micro tool for cutting hardened steel. <i>Science China Technological Sciences</i> , <b>2016</b> , 59, 876-881	3.5	7
110	Narrow-gap, semiconducting, superhard amorphous carbon with high toughness, derived from C60 fullerene. <i>Cell Reports Physical Science</i> , <b>2021</b> , 2, 100575	6.1	7
109	Low-energy 3D sp carbons with versatile properties beyond graphite and graphene. <i>Dalton Transactions</i> , <b>2018</b> , 47, 6233-6239	4.3	6
108	Novel carbon polymorphs with cumulative double bonds in three-dimensional sp-sp hybrid framework. <i>Physical Chemistry Chemical Physics</i> , <b>2018</b> , 20, 15022-15029	3.6	6
107	Spherical strengthening precipitate in a Mg-10wt%Y alloy with superhigh pressure aging. <i>Materials Letters</i> , <b>2013</b> , 96, 16-19	3.3	6
106	Selected Reactive Sites Tuned by High Pressure: Oligomerization of Solid-State Cyanamide. <i>Journal of Physical Chemistry C</i> , <b>2015</b> , 119, 12801-12807	3.8	6
105	Properties of CaB <sub>6</sub> single crystals synthesized under high pressure and temperature. <i>Science China: Physics, Mechanics and Astronomy</i> , <b>2011</b> , 54, 1791-1795	3.6	6
104	Electrical properties of polycrystalline CaB <sub>6</sub> under high pressure and low temperature. <i>Physica Status Solidi (B): Basic Research</i> , <b>2011</b> , 248, 1162-1165	1.3	6
103	High-T <sub>c</sub> dc-SQUID magnetometer and its application in eddy current non-destructive evaluation. <i>Cryogenics</i> , <b>2004</b> , 44, 695-699	1.8	6
102	Experimental observation of local heteroepitaxy between cubic-C <sub>3</sub> N <sub>4</sub> and Ti <sub>2</sub> N in CN <sub>x</sub> /TiN <sub>y</sub> bilayers prepared by ion beam sputtering. <i>Journal of Crystal Growth</i> , <b>2001</b> , 225, 67-72	1.6	6
101	Lithium Cluster Segregation in Coherent Contraction Twin Boundaries of Magnesium Alloys. <i>Acta Materialia</i> , <b>2020</b> , 201, 477-487	8.4	6
100	Design of a Class of New sp <sup>2</sup> & sp <sup>3</sup> Carbons Constructed by Graphite and Diamond Building Blocks. <i>Chinese Physics Letters</i> , <b>2021</b> , 38, 028102	1.8	6



99	Preparation of bulk metallic glasses by modifying local structure of icosahedral quasicrystals. <i>Intermetallics</i> , <b>2019</b> , 109, 97-104	3.5	5
98	Thermoelectric performance of single elemental doped n-type PbTe regulated by carrier concentration. <i>Journal of Alloys and Compounds</i> , <b>2019</b> , 787, 180-185	5.7	5
97	Two-dimensional boron on Pb (1 1 0) surface. <i>FlatChem</i> , <b>2018</b> , 7, 34-41	5.1	5
96	Strengthening in high-pressure quenched Zr. <i>High Pressure Research</i> , <b>2017</b> , 37, 278-286	1.6	5
95	Relaxation dynamics in glass forming liquids with related molecular structures. <i>Chemical Physics Letters</i> , <b>2012</b> , 551, 81-85	2.5	5
94	Thermal oxidation behavior of hexagonal BC <sub>2</sub> N. <i>Materials Characterization</i> , <b>2009</b> , 60, 56-59	3.9	5
93	Study of structural stabilities and optical properties of HgTe under high pressure. <i>Journal of Physics and Chemistry of Solids</i> , <b>2009</b> , 70, 433-438	3.9	5
92	High-Quality YBa <sub>2</sub> Cu <sub>3</sub> O <sub>7-<math>\delta</math></sub> Films with CeO <sub>2</sub> /YSZ Buffer Layers on 2-Inch Si Wafers Deposited by Pulsed Laser. <i>Journal of Superconductivity and Novel Magnetism</i> , <b>1998</b> , 11, 713-717		5
91	Nonradiative transition mechanism on the surface of nanocrystalline La <sub>0.8</sub> Sr <sub>0.2</sub> FeO <sub>3</sub> probed by photoacoustic and surface photovoltaic techniques. <i>Physical Review B</i> , <b>2007</b> , 75,	3.3	5
90	Spark discharge and high-speed impact treatment of turbostratic CN <sub>x</sub> powder. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , <b>2003</b> , 350, 190-194	5.3	5
89	Atomic Force Microscopy of Surface Reconstructed SrTiO <sub>3</sub> Vicinal Substrates for Epitaxial Growth of YBa <sub>2</sub> Cu <sub>3</sub> O <sub>7-<math>\delta</math></sub> Thin Films. <i>Chinese Physics Letters</i> , <b>1999</b> , 16, 853-855	1.8	5
88	Strengthening mechanism of $\beta$ Zr. <i>Computational Materials Science</i> , <b>2017</b> , 135, 134-140	3.2	4
87	Influence of van der Waals epitaxy on phase transformation behaviors in 2D heterostructure. <i>Applied Physics Letters</i> , <b>2020</b> , 116, 021602	3.4	4
86	Prediction of superconductivity in pressure-induced new silicon boride phases. <i>Physical Review B</i> , <b>2020</b> , 101,	3.3	4
85	Metastable C-centered orthorhombic Si <sub>8</sub> and Ge <sub>8</sub> . <i>Journal of Physics Condensed Matter</i> , <b>2012</b> , 24, 405803	1.8	4
84	Time dependence of interlayer coupling in Pd(50 $\parallel$ )/Co(tCo $\parallel$ )/Pd(54 $\parallel$ )/Co(tCo $\parallel$ )/Pd(50 $\parallel$ ) multilayer with perpendicular anisotropy. <i>Journal of Applied Physics</i> , <b>2011</b> , 110, 043918	2.5	4
83	HPHT synthesis and electrical transport properties of Sm <sub>x</sub> Co <sub>4</sub> Sb <sub>12</sub> . <i>Journal of Rare Earths</i> , <b>2010</b> , 28, 407-410	3.7	4
82	Magnetic reversal in two antiferromagnetically coupled Co/Bt multilayers with perpendicular anisotropy: Effect of competing interlayer coupling and interfacial biasing. <i>Physical Review B</i> , <b>2006</b> , 74,	3.3	4

81	Field emission from lotiform-like ZnO nanostructures synthesized via thermal evaporation method. <i>Applied Physics A: Materials Science and Processing</i> , <b>2006</b> , 84, 165-169	2.6	4
80	First-principles prediction of two-dimensional copper borides. <i>Physical Review Materials</i> , <b>2020</b> , 4,	3.2	4
79	Room-temperature electric field modulation of magnetization in a helimagnet. <i>Journal Physics D: Applied Physics</i> , <b>2020</b> , 53, 025001	3	4
78	Heat-treated glassy carbon under pressure exhibiting superior hardness, strength and elasticity. <i>Journal of Materiomics</i> , <b>2021</b> , 7, 177-184	6.7	4
77	Carbon content-dependent microstructures, surface characteristics and thermal stability of mechanical alloying derived SiBCN powders. <i>Ceramics International</i> , <b>2018</b> , 44, 3614-3624	5.1	4
76	High-Performance Broadband Photodetectors of Heterogeneous 2D Inorganic Molecular Sb <sub>2</sub> O <sub>3</sub> /Monolayer MoS <sub>2</sub> Crystals Grown via Chemical Vapor Deposition. <i>Advanced Optical Materials</i> , <b>2020</b> , 8, 2000168	8.1	4
75	Thermoelectric properties of high pressure synthesized lithium and calcium double-filled CoSb <sub>3</sub> . <i>AIP Advances</i> , <b>2017</b> , 7, 015204	1.5	3
74	Atomic-scale observation of the deformation and failure of diamonds by in-situ double-tilt mechanical testing transmission electron microscope holder. <i>Science China Materials</i> , <b>2020</b> , 63, 2335-2343 <sup>1</sup>	7.1	3
73	Synthesis of twin-structured nanodiamond particles. <i>AIP Advances</i> , <b>2020</b> , 10, 015240	1.5	3
72	Development of Degradable Mg-RE Based Biomaterials. <i>Advanced Materials Research</i> , <b>2012</b> , 509, 36-39	0.5	3
71	Negative refractive index of energy flow in Veselago materials. <i>Europhysics Letters</i> , <b>2008</b> , 83, 67007	1.6	3
70	Preparation and properties of YBa <sub>2</sub> Cu <sub>3</sub> O <sub>7</sub> thin films on sapphire with Yttria-stabilized zirconia buffer layer. <i>Journal of Superconductivity and Novel Magnetism</i> , <b>1994</b> , 7, 693-696		3
69	IN-SITU PREPARATION OF YBa <sub>2</sub> Cu <sub>3</sub> O <sub>7</sub> SUPERCONDUCTING THIN FILMS BY PULSED Nd:YAG LASER DEPOSITION. <i>Modern Physics Letters B</i> , <b>1992</b> , 06, 477-483	1.6	3
68	Pressure Effect on Order-Disorder Ferroelectric Transition in a Hydrogen-Bonded Metal-Organic Framework. <i>Journal of Physical Chemistry Letters</i> , <b>2020</b> , 11, 9566-9571	6.4	3
67	Temperature-dependent hardness of zinc-blende structured covalent materials. <i>Science China Materials</i> , <b>2021</b> , 64, 2280-2288	7.1	3
66	The rise of plastic deformation in boron nitride ceramics. <i>Science China Materials</i> , <b>2021</b> , 64, 46-51	7.1	3
65	Helium-nitrogen mixtures at high pressure. <i>Physical Review B</i> , <b>2021</b> , 103,	3.3	3
64	Magnetic Anisotropy Control with Curie Temperature above 400 K in a van der Waals Ferromagnet for Spintronic Device.. <i>Advanced Materials</i> , <b>2022</b> , e2201209	24	3

63	Rise of correlated dislocations in nanotwinned metals against fatigue. <i>Science China Materials</i> , <b>2018</b> , 61, 127-128	7.1	2
62	Anomalous melting behavior of polycrystalline bismuth quenched at high temperature and high pressure. <i>Materials Letters</i> , <b>2016</b> , 168, 36-39	3.3	2
61	Synthesis, Thermal Properties and Application of Nanodiamond <b>2017</b> , 85-112		2
60	Superhard B <sub>2</sub> C <sub>2</sub> N <sub>2</sub> compounds from first-principles calculations. <i>Journal of Applied Physics</i> , <b>2011</b> , 109, 023516	2.5	2
59	First-principle studies of structural and electronic properties of layered B <sub>3</sub> C <sub>10</sub> N <sub>3</sub> . <i>Computational Materials Science</i> , <b>2010</b> , 47, 621-624	3.2	2
58	Interfacial structure of oxidized inner pores in precursor-derived Si <sub>3</sub> N <sub>4</sub> ceramics. <i>Journal of Non-Crystalline Solids</i> , <b>2009</b> , 355, 2390-2395	3.9	2
57	Solvothermal synthesis of hexagonal B <sub>10</sub> C <sub>10</sub> compound at low temperature conditions. <i>Diamond and Related Materials</i> , <b>2006</b> , 15, 1659-1662	3.5	2
56	A washer type high temperature superconducting dc-SQUID magnetometer with bicrystal junctions on SrTiO <sub>3</sub> substrate. <i>Physica C: Superconductivity and Its Applications</i> , <b>2005</b> , 418, 23-27	1.3	2
55	Evaluation of YBa <sub>2</sub> Cu <sub>3</sub> O <sub>7-<math>\delta</math></sub> thin films ablated from melt-textured-growth YBa <sub>2</sub> Cu <sub>3</sub> O <sub>7-<math>\delta</math></sub> target by electron microscopy. <i>Journal Physics D: Applied Physics</i> , <b>2002</b> , 35, 2180-2182	1.2	2
54	High-Tc SQUID magnetometer and planar gradiometer and their applications in non-destructive evaluation. <i>Physica C: Superconductivity and Its Applications</i> , <b>2000</b> , 341-348, 2709-2710	1.3	2
53	High-temperature superconducting devices on buffered silicon substrates <b>1998</b> ,		2
52	Scanning tunneling microscopy of laser-deposited YBa <sub>2</sub> Cu <sub>3</sub> O <sub>7</sub> thin films on Y-stabilized zirconia substrate. <i>Journal of Superconductivity and Novel Magnetism</i> , <b>1995</b> , 8, 103-108		2
51	Dependence of microwave surface resistance on the structure of laser-deposited YBa <sub>2</sub> Cu <sub>3</sub> O <sub>7-<math>\delta</math></sub> thin films. <i>Journal of Superconductivity and Novel Magnetism</i> , <b>1995</b> , 8, 287-291		2
50	Superconductivity in graphite-diamond hybrid. <i>Materials Today Physics</i> , <b>2022</b> , 23, 100630	8	2
49	Application of silicon substrates for high-Tc Josephson junctions and SQUIDs. <i>European Physical Journal Special Topics</i> , <b>1998</b> , 08, Pr3-297-Pr3-300		2
48	Diamond gets harder, tougher, and more deformable. <i>Matter and Radiation at Extremes</i> , <b>2020</b> , 5, 068103	4.7	2
47	Carbon-content-dependent phase composition, microstructural evolution, and mechanical properties of SiBCN monoliths. <i>Journal of the American Ceramic Society</i> , <b>2018</b> , 101, 2137-2154	3.8	2
46	Formation of copper boride on Cu(111). <i>Fundamental Research</i> , <b>2021</b> , 1, 482-487		2

45	High-sensitivity and versatile plasmonic biosensor based on grain boundaries in polycrystalline 1L WS films. <i>Biosensors and Bioelectronics</i> , <b>2021</b> , 194, 113596	11.8	2
44	Extraordinary high-temperature mechanical properties in binder-free nanopolycrystalline WC ceramic. <i>Journal of Materials Science and Technology</i> , <b>2022</b> , 97, 169-175	9.1	2
43	Direct evidence of entropy driven fluid-like to glass-like transition in microgel suspensions. <i>Applied Physics Letters</i> , <b>2017</b> , 110, 071902	3.4	1
42	Study on Raman Spectroscopy and Purification of B-C-N Compound. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , <b>2011</b> , 42, 2527-2529	2.3	1
41	Magnetization reversal of the hard stack in antiferromagnetically coupled soft and hard Co/Pt multilayer stacks: Exploring via minor-loop measurements on the soft stack. <i>Journal of Applied Physics</i> , <b>2010</b> , 107, 123902	2.5	1
40	Crystallization of an amorphous B <sub>10</sub> C <sub>2</sub> N precursor with a Li <sub>2</sub> BN catalyst at high pressures and temperatures. <i>Materials Characterization</i> , <b>2009</b> , 60, 1411-1414	3.9	1
39	Mechanism for the metal-conducting behavior of a CaB <sub>4</sub> single crystal. <i>Solid State Communications</i> , <b>2010</b> , 150, 1317-1320	1.6	1
38	Nonmonotonic ferromagnetic thickness dependence of out-of-plane interlayer coupling between two Co/Pt multilayers across a 11 Å NiO spacer. <i>Applied Physics Letters</i> , <b>2006</b> , 88, 022504	3.4	1
37	Effect of cooling field on the antiferromagnetic interlayer coupling and exchange biasing in two antiferromagnetically coupled Co/Pt multilayers. <i>Journal of Applied Physics</i> , <b>2007</b> , 102, 073904	2.5	1
36	Flip-chip-type high-T <sub>c</sub> gradiometer for biomagnetic measurements in unshielded environment. <i>Science in China Series A: Mathematics</i> , <b>2000</b> , 43, 82-87		1
35	Surface structural study of YBa <sub>2</sub> Cu <sub>3</sub> O <sub>7-x</sub> thin films grown by pulsed laser ablation. <i>Journal of Materials Science Letters</i> , <b>1995</b> , 14, 91-93		1
34	Characteristics of Short Cast Iron Fibres and Their Application for Diamond Cutting Wheels. <i>Powder Metallurgy</i> , <b>1995</b> , 38, 109-112	1.9	1
33	Broadband light absorption and photoresponse enhancement in monolayer WSe <sub>2</sub> crystal coupled to Sb <sub>2</sub> O <sub>3</sub> microresonators. <i>Nano Research</i> , 1	10	1
32	Tunable electrical properties of C <sub>60</sub> /m-xylene and the formation of semiconducting ordered amorphous carbon clusters under pressure. <i>Nano Research</i> , <b>2022</b> , 15, 3788	10	1
31	Controllable growth of multilayered XSe <sub>2</sub> (X=W and Mo) for nonlinear optical and optoelectronic applications. <i>2D Materials</i> ,	5.9	1
30	Extreme mechanical anisotropy in diamond with preferentially oriented nanotwin bundles. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2021</b> , 118,	11.5	1
29	Carbon Vacancy Ordered Non-Stoichiometric ZrC <sub>0.6</sub> <b>2013</b> , 478-508		1
28	High-Pressure Synthesis of cBN Nanoparticles with High-Density Nanotwin Substructures. <i>ACS Omega</i> , <b>2020</b> , 5, 650-654	3.9	1

27	Strong amorphous carbon prepared by spark-plasma sintering C60. <i>Journal of the American Ceramic Society</i> , <b>2021</b> , 104, 1655-1660	3.8	1
26	Thermoelectric performance of p-type Ca Fe <sub>1.3</sub> Co <sub>2.7</sub> Sb <sub>12</sub> skutterudites from high pressure synthesis. <i>Journal of Alloys and Compounds</i> , <b>2021</b> , 851, 156928	5.7	1
25	The hardest transition metal nitride predicted from machine learning. <i>Science Bulletin</i> , <b>2018</b> , 63, 947-948	10.6	1
24	Nanotwinned diamond cutting tool processed by femtosecond pulsed laser milling with trochoidal trajectory. <i>Journal of Materials Processing Technology</i> , <b>2021</b> , 294, 117115	5.3	1
23	In Situ Grown Ultrafine RuO Nanoparticles on GeP Nanosheets as the Electrode Material for Flexible Planar Micro-Supercapacitors with High Specific Capacitance and Cyclability. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2021</b> , 13, 47560-47571	9.5	1
22	Nanocrystalline Cubic Silicon Carbide: A Route to Superhardness.. <i>Small</i> , <b>2022</b> , e2201212	11	1
21	Fast preparation and thermoelectric properties of Zn <sub>4</sub> Sb <sub>3</sub> by HPHT. <i>Materials Science-Poland</i> , <b>2012</b> , 30, 355-358	0.6	0
20	Ultrasensitive biochemical sensors based on controllably grown films of high-density edge-rich multilayer WS <sub>2</sub> islands. <i>Sensors and Actuators B: Chemical</i> , <b>2021</b> , 131081	8.5	0
19	Design of a Series of Metallic BN with Tunable Mechanical Properties. <i>Journal of Physical Chemistry Letters</i> , <b>2021</b> , 12, 1979-1984	6.4	0
18	Dehydro-Diels-Alder reaction and diamondization of bowl-shaped clusters C <sub>18</sub> Te <sub>3</sub> Br <sub>4</sub> (Bu-O) <sub>6</sub> . <i>Nano Research</i> , 1	10	0
17	Novel Boron Nitride Polymorphs with Graphite-Diamond Hybrid Structure. <i>Chinese Physics Letters</i> , <b>2022</b> , 39, 036301	1.8	0
16	Heterogeneous Diamond-cBN Composites with Superb Toughness and Hardness. <i>Nano Letters</i> ,	11.5	0
15	Nanocrystalline Cubic Silicon Carbide: A Route to Superhardness (Small 22/2022). <i>Small</i> , <b>2022</b> , 18, 2270115	11.5	0
14	Evaporation-induced self-assembly of C on SrTiO <sub>3</sub> (110) reconstructed surfaces. <i>Nanotechnology</i> , <b>2019</b> , 30, 415605	3.4	
13	Surface Reconstructions of SrTiO <sub>3</sub> (110) Calibrated with STM and LEED. <i>Physica Status Solidi (B): Basic Research</i> , <b>2019</b> , 256, 1900277	1.3	
12	Effect of a NiO capping layer on the temperature dependence of the interlayer coupling in Co/Pt multilayer with perpendicular anisotropy. <i>Thin Solid Films</i> , <b>2011</b> , 519, 5596-5599	2.2	
11	Phase-constituent control and superconducting properties of MgB <sub>2</sub> films in situ grown by hot-filament chemical-vapor deposition. <i>Journal of Crystal Growth</i> , <b>2007</b> , 299, 82-85	1.6	
10	CN <sub>x</sub> /TiN <sub>y</sub> films prepared by ion-beam sputtering. <i>Journal of Materials Science</i> , <b>2003</b> , 38, 1471-1477	4.3	

- 9 Formation and orientation control of Y<sub>2</sub>O<sub>3</sub> inclusions in pulsed laser deposited YBa<sub>2</sub>Cu<sub>3</sub>O<sub>7</sub> films by using a melt-textured target. *Journal of Crystal Growth*, **2003**, 252, 560-564 1.6
- 8 IMPROVEMENT OF THE SURFACE ROUGHNESS OF LaAlO<sub>3</sub> SUBSTRATE BY DEPOSITING ANOTHER LAYER OF LaAlO<sub>3</sub>. *Modern Physics Letters B*, **1993**, 07, 743-746 1.6
- 7 YBa<sub>2</sub>Cu<sub>3</sub>O<sub>7-x</sub> Superconducting Thin Films Grown on CaNdAlO<sub>4</sub> (100) Substrates. *Chinese Physics Letters*, **1994**, 11, 301-303 1.8
- 6 Superconducting behavior of high-T<sub>c</sub> YBa<sub>2</sub>Cu<sub>3</sub>O<sub>7</sub> thin films with BaO impurity produced by pulsed laser deposition. *Journal of Superconductivity and Novel Magnetism*, **1994**, 7, 709-713
- 5 Superconductivity, microstructure of large area YBa<sub>2</sub>Cu<sub>3</sub>O<sub>7</sub> thin films prepared by pulsed laser ablation (PLA). *Physica C: Superconductivity and Its Applications*, **1994**, 235-240, 635-636 1.3
- 4 Carbon Vacancy Ordered Non-Stoichiometric ZrC<sub>0.6667-689</sub>
- 3 Extreme dislocation-mediated plasticity of yttria-stabilized zirconia. *Materials Today Physics*, **2022**, 22, 100588 8
- 2 Phase transitions of alkaline-earth metal sulfides under pressure. *Materials Research Express*, **2021**, 8, 065902 1.7
- 1 Unprecedented pressure-driven metallization and topological charge transport in an anion radical salt. *Materials Today Physics*, **2021**, 20, 100467 8