Mingguang Yao

List of Publications by Year
in descending order

59 papers	1,307 citations	361413 20 h-index	361022 35 g-index
59 all docs	59 docs citations	59 times ranked	1426 citing authors

#	Article	IF	Citations
1	Highly Enhanced Luminescence from Single-Crystalline C60Â·1m-xylene Nanorods. Chemistry of Materials, 2006, 18, 4190-4194.	6.7	117
2	Novel Superhard <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:mi>s</mml:mi><mml:msup><mml:mi>p</mml:mi><mml:mn>3</mml:mn></mml:msup></mml:mrow Carbon Allotrope from Cold-Compressed <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:msub><mml:mi mathvariant="normal">C</mml:mi><mml:mrow><mml:mn>70</mml:mn></mml:mrow></mml:msub></mml:mrow></mml:math> Peapods. Physical Review Letters, 2017, 118, 245701.	7.8	100
3	Ultrahard bulk amorphous carbon from collapsed fullerene. Nature, 2021, 599, 599-604.	27.8	99
4	Raman signature to identify the structural transition of single-wall carbon nanotubes under high pressure. Physical Review B, 2008, 78, .	3.2	79
5	Superhard three-dimensional carbon with metallic conductivity. Carbon, 2017, 123, 311-317.	10.3	61
6	Pressure-induced SERS enhancement in a MoS₂/Au/R6G system by a two-step charge transfer process. Nanoscale, 2019, 11, 21493-21501.	5.6	48
7	Rotational dynamics of confined C ₆₀ from near-infrared Raman studies under high pressure. Proceedings of the National Academy of Sciences of the United States of America, 2009, 106, 22135-22138.	7.1	43
8	Decompression-Induced Diamond Formation from Graphite Sheared under Pressure. Physical Review Letters, 2020, 124, 065701.	7.8	41
9	Molecular insertion regulates the donor-acceptor interactions in cocrystals for the design of piezochromic luminescent materials. Nature Communications, 2021, 12, 4084.	12.8	41
10	Facile synthesis of hydrogenated carbon nanospheres with a graphite-like ordered carbon structure. Nanoscale, 2013, 5, 11306.	5.6	36
11	Significantly narrowed bandgap and enhanced charge separation in porous, nitrogen-vacancy red g-C3N4 for visible light photocatalytic H2 production. Applied Surface Science, 2020, 504, 144407.	6.1	36
12	Transparent, superhard amorphous carbon phase from compressing glassy carbon. Applied Physics Letters, 2014, 104, 021916.	3.3	34
13	Tailoring Building Blocks and Their Boundary Interaction for the Creation of New, Potentially Superhard, Carbon Materials. Advanced Materials, 2015, 27, 3962-3968.	21.0	34
14	Pressure-Induced Emission Enhancement and Multicolor Emission for 1,2,3,4-Tetraphenyl-1,3-cyclopentadiene: Controlled Structure Evolution. Journal of Physical Chemistry Letters, 2019, 10, 5557-5562.	4.6	33
15	Pressure-induced transformation and superhard phase in fullerenes: The effect of solvent intercalation. Applied Physics Letters, 2013, 103, .	3.3	29
16	A New Carbon Phase Constructed by Longâ€Range Ordered Carbon Clusters from Compressing C₇₀ Solvates. Advanced Materials, 2014, 26, 7257-7263.	21.0	29
17	Tuning the band gap and the nitrogen content in carbon nitride materials by high temperature treatment at high pressure. Carbon, 2018, 130, 170-177.	10.3	29
18	Uniaxial-stress-driven transformation in cold compressed glassy carbon. Applied Physics Letters, 2017, 111, .	3.3	25

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19	Pressure tuned photoluminescence and band gap in two-dimensional layered g-C₃N₄: the effect of interlayer interactions. Nanoscale, 2020, 12, 12300-12307.	5.6	25
20	SERS Selective Enhancement on Monolayer MoS₂ Enabled by a Pressure-Induced Shift from Resonance to Charge Transfer. ACS Applied Materials & Interfaces, 2021, 13, 26551-26560.	8.0	23
21	Pressure-Driven Topological Transformations of Iodine Confined in One-Dimensional Channels. Journal of Physical Chemistry C, 2013, 117, 25052-25058.	3.1	21
22	Band-gap engineering and structure evolution of confined long linear carbon chains@double-walled carbon nanotubes under pressure. Carbon, 2020, 159, 266-272.	10.3	20
23	Negative Volume Compressibility in Sc₃N@C₈₀â€“Cubane Cocrystal with Charge Transfer. Journal of the American Chemical Society, 2020, 142, 7584-7590.	13.7	20
24	Diamond-graphite nanocomposite synthesized from multi-walled carbon nanotubes fibers. Carbon, 2021, 172, 138-143.	10.3	20
25	The effect of hydrogenation on the growth of carbon nanospheres and their performance as anode materials for rechargeable lithium-ion batteries. Nanoscale, 2015, 7, 1984-1993.	5.6	18
26	New Ordered Structure of Amorphous Carbon Clusters Induced by Fullereneâ€“Cubane Reactions. Advanced Materials, 2018, 30, e1706916.	21.0	18
27	Pressure-induced transformation in Na<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:msub><mml:mrow /><mml:mn>4</mml:mn></mml:msub></mml:math>C<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:msub><mml:mrow /><mml:mn>60</mml:mn></mml:msub></mml:math>polymer: X-ray diffraction and Raman scattering experiments. Physical Review B, 2011, 84, .	3.2	17
28	Pressure-induced transformations of onion-like carbon nanospheres up to 48 GPa. Journal of Chemical Physics, 2015, 142, 034702.	3.0	17
29	In situ Raman and photoluminescence study on pressureâ€induced phase transition in C 60 nanotubes. Journal of Raman Spectroscopy, 2012, 43, 737-740.	2.5	15
30	Polarized Raman Study of Aligned Multiwalled Carbon Nanotubes Arrays under High Pressure. Journal of Physical Chemistry C, 2015, 119, 27759-27767.	3.1	15
31	Photoluminescence properties of high-pressure-polymerized C60 nanorods in the orthorhombic and tetragonal phases. Applied Physics Letters, 2006, 89, 181925.	3.3	14
32	Structural transformation of confined iodine in the elliptical channels of AlPO4-11 crystals under high pressure. Physical Chemistry Chemical Physics, 2014, 16, 8301.	2.8	14
33	Effect of high pressure on electrical transport in the<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:msub><mml:mrow><mml:mtext>Li</mml:mtext></mml:mrow><mml:mn>4</mml:mn></mml:msub> polymer from 100 to 400 K. Physical Review B, 2010, 81, .	3.2	11
34	Pressure-induced transformations in carbon nano-onions. Journal of Applied Physics, 2016, 119, .	2.5	10
35	Graphdiyne under pressure: A Raman study. Applied Physics Letters, 2018, 113, .	3.3	10
36	Direct Conversion of Graphene Aerogel into Low-Density Diamond Aerogel Composed of Ultrasmall Nanocrystals. Journal of Physical Chemistry C, 2018, 122, 13193-13198.	3.1	9

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37	Electrical transport properties ofA₄C₆₀(A=Li, Na, and Rb) under pressure. High Pressure Research, 2008, 28, 597-600.	1.2	7
38	Remarkable cycle-activated capacity increasing in onion-like carbon nanospheres as lithium battery anode material. Nanotechnology, 2017, 28, 035704.	2.6	7
39	Effect of C₇₀ rotation on the photoluminescence spectra of compressed C₇₀*mesitylene. Journal of Raman Spectroscopy, 2017, 48, 437-442.	2.5	7
40	One-step synthesis of few layers g-C3N4 with suitable band structure and enhanced photocatalytic activities. Chemical Physics Letters, 2019, 732, 136613.	2.6	6
41	Transparent aerogel-like diamond nanofilms from glassy carbon by high pressure and high temperature. Diamond and Related Materials, 2019, 96, 90-96.	3.9	6
42	Crystallized phosphorus/carbon composites with tunable P C bonds by high pressure and high temperature. Journal of Physics and Chemistry of Solids, 2019, 130, 250-255.	4.0	6
43	High pressure studies of alkali metal doped fullerides A4C60. Diamond and Related Materials, 2011, 20, 600-603.	3.9	5
44	Ac impedance of A₄C₆₀fullerides under pressure. New Journal of Physics, 2015, 17, 023010.	2.9	5
45	Acoustic and elastic properties of silicone oil under high pressure. RSC Advances, 2015, 5, 38056-38060.	3.6	5
46	Structural Stability and Deformation of Solvated Sm@C2(42)-C90 under High Pressure. Scientific Reports, 2016, 6, 31213.	3.3	5
47	Increasing Interlayer Coupling Prevented the Deformation in Compressed Multilayer WSe₂. Journal of Physical Chemistry C, 2018, 122, 10261-10266.	3.1	5
48	Raman study of the electronâ€“phonon interaction in light alkali metal intercalated metallic fullerides. Journal of Physics Condensed Matter, 2011, 23, 115701.	1.8	4
49	Probing factors affecting the Raman modes and structural collapse of singleâ€walled carbon nanotubes under pressure. Physica Status Solidi (B): Basic Research, 2013, 250, 1370-1375.	1.5	4
50	Unexpected photoluminescence properties from one-dimensional molecular chains. Nanoscale, 2016, 8, 1456-1461.	5.6	4
51	Raman study of graphene nanoribbon analogs confined in singleâ€walled carbon nanotubes and their highâ€pressure transformations. Journal of Raman Spectroscopy, 2017, 48, 951-957.	2.5	4
52	Enhanced energy storage and photoluminescence properties in ErBiO3-doped (Na0.5Bi0.5)TiO3-SrTiO3 ceramics. Journal of Materials Science, 2022, 57, 229-240.	3.7	4
53	Reversible nano-scale phase separation of Rb₄C₆₀under pressure. Journal of Physics: Conference Series, 2010, 215, 012020.	0.4	2
54	Laser-induced transformation of Li4C60 and Na4C60 polymers into metallic monomeric fulleride phases. Chemical Physics Letters, 2010, 489, 64-68.	2.6	2

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55	Study on disordered graphitic nanocarbon under pressure and their transformation into polycrystalline nanodiamond. Chemical Physics Letters, 2019, 730, 491-496.	2.6	2
56	Anomalous phonon softening of G-band in compressed graphitic carbon nitride due to strong electrostatic repulsion. Applied Physics Letters, 2021, 118, .	3.3	2
57	Enhanced Relaxor Behavior and Energyâ€Storage Properties in Na_{0.5}Bi_{0.5}TiO₃â€Based Ceramics by Doping the Complex Ions (Al_{0.5}Nb_{0.5})⁴⁺. Physica Status Solidi (A) Applications and Materials Science, 2022, 219, .	1.8	2
58	Structural Evolution of D _{5h}(1)-C₉₀ under High Pressure: A Mediate Allotrope of Nanocarbon from Zero-Dimensional Fullerene to One-Dimensional Nanotube. Chinese Physics Letters, 2022, 39, 056101.	3.3	2
59	Ordered Amorphous Carbon: New Ordered Structure of Amorphous Carbon Clusters Induced by Fullerene-Cubane Reactions (Adv. Mater. 22/2018). Advanced Materials, 2018, 30, 1870156.	21.0	0