Matthias Krause

List of Publications by Year
in descending order

58 papers	1,611 citations	361045 20 h-index	301761 39 g-index
61 all docs	61 docs citations	61 times ranked	1447 citing authors

#	Article	IF	Citations
1	Isolation and Characterisation of Two Sc3N@C80 Isomers. ChemPhysChem, 2004, 5, 1445-1449.	1.0	143
2	Deviation from the Planaritya Large Dy3N Cluster Encapsulated in anIh-C80Cage:Â An X-ray Crystallographic and Vibrational Spectroscopic Study. Journal of the American Chemical Society, 2006, 128, 16733-16739.	6.6	129
3	Expanding the World of Endohedral Fullerenes?The Tm3N@C2n (39?n?43) Clusterfullerene Family. Chemistry - A European Journal, 2005, 11, 706-711.	1.7	116
4	Gadolinium Nitride Gd3N in Carbon Cages: The Influence of Cluster Size and Bond Strength. Angewandte Chemie - International Edition, 2005, 44, 1557-1560.	7.2	109
5	Entrapped Bonded Hydrogen in a Fullerene: the Five-Atom Cluster Sc3CH in C80. ChemPhysChem, 2007, 8, 537-540.	1.0	101
6	C78Cage Isomerism Defined by Trimetallic Nitride Cluster Size:Â A Computational and Vibrational Spectroscopic Study. Journal of Physical Chemistry B, 2007, 111, 3363-3369.	1.2	94
7	Reactive Species Generated during Wet Chemical Etching of Silicon in HF/HNO3Mixtures. Journal of Physical Chemistry B, 2006, 110, 11377-11382.	1.2	84
8	The MoS2 Nanotubes with Defect-Controlled Electric Properties. Nanoscale Research Letters, 2011, 6, 26.	3.1	71
9	The Electronic and Vibrational Structure of Endohedral Tm3N@C80 (I) Fullerene â˜ Proof of an Encaged Tm3+. Journal of Physical Chemistry A, 2005, 109, 7088-7093.	1.1	69
10	Magnetic Moments of the Endohedral Cluster Fullerenes Ho3N@C80 and Tb3N@C80: The Role of Ligand Fields. Angewandte Chemie - International Edition, 2005, 44, 3306-3309.	7.2	68
11	Structural and Electronic Properties of Isomers of Sc2@C84(I, II, III):13C NMR and IR/Raman Spectroscopic Studies. Journal of Physical Chemistry B, 2000, 104, 5072-5077.	1.2	60
12	Excitonic resonances in WS<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:msub><mml:mrow /><mml:mn>2</mml:mn></mml:msub></mml:math>nanotubes. Physical Review B, 2012, 86, .	1.1	45
13	Vibrational Structure of Endohedral Fullerene Sc3N@C78 (D3hâ€²): Evidence for a Strong Coupling between the Sc3N Cluster and C78 Cage. ChemPhysChem, 2006, 7, 1734-1740.	1.0	40
14	Vibrational signatures of fullerene oxides. Journal of the Chemical Society, Faraday Transactions, 1998, 94, 2287-2294.	1.7	36
15	High resolution TEM study of WS₂ nanotubes. Physica Status Solidi (B): Basic Research, 2011, 248, 2716-2719.	0.7	35
16	Diameter and Morphology Dependent Raman Signatures of WS₂ Nanostructures. ChemPhysChem, 2009, 10, 2221-2225.	1.0	34
17	Electrochemical Doping of Double-Walled Carbon Nanotubes: An In Situ Raman Spectroelectrochemical Study. ChemPhysChem, 2004, 5, 274-277.	1.0	30
18	The Transformation Pathways of Mo6S2I8 Nanowires into Morphology-Selective MoS2 Nanostructures. Journal of Physical Chemistry C, 2010, 114, 6458-6463.	1.5	25

#	Article	IF	Citations
19	Diameter dependent Raman scattering of WS₂ nanotubes. Physica Status Solidi (B): Basic Research, 2009, 246, 2786-2789.	0.7	20
20	Nickel-enhanced graphitic ordering of carbon ad-atoms during physical vapor deposition. Carbon, 2016, 100, 656-663.	5.4	19
21	Transparent conductive tantalum doped tin oxide as selectively solar-transmitting coating for high temperature solar thermal applications. Solar Energy Materials and Solar Cells, 2019, 196, 84-93.	3.0	19
22	Electrochemical nanostructuring of fullerene filmsâ€"spectroscopic evidence for C60 polymer formation and hydrogenation. Physical Chemistry Chemical Physics, 2005, 7, 3179.	1.3	18
23	Raman characterization of MoS₂ microtube. Physica Status Solidi (B): Basic Research, 2009, 246, 2782-2785.	0.7	17
24	Structural and mechanical characterization of BCxNy thin films deposited by pulsed reactive magnetron sputtering. Thin Solid Films, 2009, 518, 77-83.	0.8	17
25	Morphology and Structure of C:Co, C:V, and C:Cu Nanocomposite Films. Plasma Processes and Polymers, 2009, 6, S902.	1.6	14
26	Sculpting nanoscale precipitation patterns in nanocomposite thin films via hyperthermal ion deposition. Applied Physics Letters, 2010, 97, .	1.5	14
27	Electronic absorption and vibrational spectroscopy of azafullerene C59HN and its oxide C59HNO. Perkin Transactions II RSC, 2000, , 2361-2362.	1.1	12
28	Thermal Stability and High Temperature Graphitization of Bisazafullerene (C59N)2As Studied by IR and Raman Spectroscopy. Journal of Physical Chemistry B, 2001, 105, 11964-11969.	1.2	12
29	Rotating Cell for in Situ Raman Spectroelectrochemical Studies of Photosensitive Redox Systems. Analytical Chemistry, 2009, 81, 2017-2021.	3.2	12
30	Compositionally modulated ripples during composite film growth: Three-dimensional pattern formation at the nanoscale. Physical Review B, 2014, 89, .	1.1	12
31	Tetrahedral Amorphous Carbon Coatings for Friction Reduction of the Valve Train in Internal Combustion Engines. Advanced Engineering Materials, 2014, 16, 1226-1233.	1.6	12
32	Tilting of carbon encapsulated metallic nanocolumns in carbon-nickel nanocomposite films by ion beam assisted deposition. Applied Physics Letters, 2012, 101, 053112.	1.5	11
33	Carbonâ€‰:â€‰nickel nanocomposite templates â€“ predefined stable catalysts for diameter-controlled growth of single-walled carbon nanotubes. Nanoscale, 2016, 8, 14888-14897.	2.8	10
34	Thermally induced formation of metastable nanocomposites in amorphous Cr-Zr-O thin films deposited using reactive ion beam sputtering. Thin Solid Films, 2016, 612, 430-436.	0.8	9
35	On the Effect of Thin Film Growth Mechanisms on the Specular Reflectance of Aluminium Thin Films Deposited via Filtered Cathodic Vacuum Arc. Coatings, 2018, 8, 321.	1.2	7
36	Directionality of metal-induced crystallization and layer exchange in amorphous carbon/nickel thin film stacks. Carbon, 2020, 159, 656-667.	5.4	7

#	Article	IF	Citations
37	Environment Controlled Dewetting of Rhâ€“Pd Bilayers: A Route for Coreâ€“Shell Nanostructure Synthesis. Journal of Physical Chemistry C, 2012, 116, 14401-14407.	1.5	6
38	Carbon Cage Vibrations of M@C82 and M2@C2 n (M = La, Ce; 2nâ€‰=â€‰72, 78, 80): The Role of the Metal Atoms. Fullerenes Nanotubes and Carbon Nanostructures, 2014, 22, 202-214.	1.0	6
39	Percolated Si:SiO2 Nanocomposites: Oven- vs. Millisecond Laser-Induced Crystallization of SiOx Thin Films. Nanomaterials, 2018, 8, 525.	1.9	6
40	SWCNT growth from C:Ni nanocomposites. Physica Status Solidi (B): Basic Research, 2012, 249, 2357-2360.	0.7	5
41	Influence of Nickel Catalyst Morphology on Layer-Exchange-Based Carbon Crystallisation of Ni/a-C Bilayers. Physica Status Solidi (B): Basic Research, 2017, 254, 1700234.	0.7	5
42	Cluster Tool for In Situ Processing and Comprehensive Characterization of Thin Films at High Temperatures. Analytical Chemistry, 2018, 90, 7837-7842.	3.2	5
43	Formation, structure, and optical properties of copper chromite thin films for high-temperature solar absorbers. Materialia, 2021, 18, 101156.	1.3	4
44	Tailoring Crystalline Structure of Titanium Oxide Films for Optical Applications Using Non-Biased Filtered Cathodic Vacuum Arc Deposition at Room Temperature. Coatings, 2021, 11, 233.	1.2	3
45	Solar selective coatings and materials for high-temperature solar thermal applications. , 2021, , 383-427.		3
46	Structure, Optical and Mechanical Properties of Direct Current Magnetron Sputtered Carbon: Vanadium Nanocomposite Thin Films. Nanoscience and Nanotechnology Letters, 2013, 5, 94-100.	0.4	3
47	Low-Friction of ta-C Coatings Paired with Brass and Other Materials under Vacuum and Atmospheric Conditions. Materials, 2022, 15, 2534.	1.3	3
48	Infra-red and Raman spectroscopic study on the thermal stability and high temperature transformation of hydroazafullerene C59HN. Carbon, 2006, 44, 1420-1424.	5.4	2
49	Phase Segregation and Transformations in Arsenic-Implanted ZnO Thin Films. Journal of Physical Chemistry C, 2011, 115, 8798-8807.	1.5	1
50	Comprehensive Environmental Testing of Optical Properties in Thin Films. Procedia CIRP, 2014, 22, 271-276.	1.0	1
51	Phase Transitions in C:Ni Nanocomposite Templates during Diameterâ€Selective CVD Synthesis of SWCNTs. Physica Status Solidi (B): Basic Research, 2017, 254, 1700228.	0.7	1
52	Distinct Redox Doping of Core/Shell Nanostructures: Double Wall Carbon Nanotubes. AIP Conference Proceedings, 2004, , .	0.3	0
53	Magnetic Moments of the Endohedral Cluster Fullerenes Ho3N@C80 and Tb3N@C80: The Role of Ligand Fields.. ChemInform, 2005, 36, no.	0.1	0
54	Back Cover: High resolution TEM study of WS₂ nanotubes (Phys. Status Solidi B 11/2011). Physica Status Solidi (B): Basic Research, 2011, 248, .	0.7	0

#	Article	IF	Citations
55	Solar selective coatings based on carbon: transition metal nanocomposites. , 2015, , .		0
56	Preparation and Characterization of Solar Thermal Absorbers by Nanoimprint Lithography and Sputtering. MRS Advances, 2019, 4, 1905-1911.	0.5	0
57	Impact of low energy ion beams on the properties of rr-P3HT films. Applied Surface Science, 2021, 535, 147619.	3.1	0
58	Advantages of Using Triboscopic Imaging: Case Studies on Carbon Coatings in Non-Lubricated Friction Conditions. Materials, 2022, 15, 4317.	1.3	0