Christina Trautmann

List of Publications by Year
in descending order

427 papers	14,485 citations	22153 59 h-index	36028 97 g-index
442 all docs	442 docs citations	442 times ranked	9411 citing authors

#	Article	IF	Citations
1	Protein Biosensors Based on Biofunctionalized Conical Gold Nanotubes. Journal of the American Chemical Society, 2005, 127, 5000-5001.	13.7	491
2	Room-temperature entanglement between single defect spins in diamond. Nature Physics, 2013, 9, 139-143.	16.7	353
3	Fragmentation of nanowires driven by Rayleigh instability. Applied Physics Letters, 2004, 85, 5337-5339.	3.3	296
4	Swelling effects in lithium fluoride induced by swift heavy ions. Physical Review B, 2000, 62, 13-16.	3.2	267
5	Fine Structure in Swift Heavy Ion Tracks in Amorphous<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:msub><mml:mi>SiO</mml:mi><mml:mn>2</mml:mn></mml:msub></mml:math>. Physical Review Letters, 2008, 101, 175503.	7.8	242
6	Track formation and fabrication of nanostructures with MeV-ion beams. Nuclear Instruments & Methods in Physics Research B, 2004, 216, 1-8.	1.4	235
7	An Asymmetric Polymer Nanopore for Single Molecule Detection. Nano Letters, 2004, 4, 497-501.	9.1	230
8	Review of A2B2O7 pyrochlore response to irradiation and pressure. Nuclear Instruments & Methods in Physics Research B, 2010, 268, 2951-2959.	1.4	202
9	Ultrafast ion sieving using nanoporous polymeric membranes. Nature Communications, 2018, 9, 569.	12.8	197
10	Preparation of synthetic nanopores with transport properties analogous to biological channels. Surface Science, 2003, 532-535, 1061-1066.	1.9	187
11	Highly Selective Ionic Transport through Subnanometer Pores in Polymer Films. Advanced Functional Materials, 2016, 26, 5796-5803.	14.9	182
12	Chemical modifications of PET induced by swift heavy ions. Nuclear Instruments & Methods in Physics Research B, 1997, 131, 159-166.	1.4	180
13	Ion transport through asymmetric nanopores prepared by ion track etching. Nuclear Instruments & Methods in Physics Research B, 2003, 208, 143-148.	1.4	168
14	Electrical characterization of electrochemically grown single copper nanowires. Applied Physics Letters, 2003, 82, 2139-2141.	3.3	164
15	Single ion induced surface nanostructures: a comparison between slow highly charged and swift heavy ions. Journal of Physics Condensed Matter, 2011, 23, 393001.	1.8	157
16	Calcium-Induced Voltage Gating in Single Conical Nanopores. Nano Letters, 2006, 6, 1729-1734.	9.1	140
17	Nanometric transformation of the matter by short and intense electronic excitation: Experimental data versus inelastic thermal spike model. Nuclear Instruments & Methods in Physics Research B, 2012, 277, 28-39.	1.4	138
18	Jetlike Component in Sputtering of LiF Induced by Swift Heavy Ions. Physical Review Letters, 2002, 88, 057602.	7.8	136

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19	Bioinspired integrated nanosystems based on solid-state nanopores: â€œiontronicâ€•transduction of biological, chemical and physical stimuli. Chemical Science, 2017, 8, 890-913.	7.4	136
20	Electro-responsive asymmetric nanopores in polyimide with stable ion-current signal. Applied Physics A: Materials Science and Processing, 2003, 76, 781-785.	2.3	135
21	Polydopamine Meets Solid-State Nanopores: A Bioinspired Integrative Surface Chemistry Approach To Tailor the Functional Properties of Nanofluidic Diodes. Journal of the American Chemical Society, 2015, 137, 6011-6017.	13.7	131
22	Molecular Design of Solidâ€State Nanopores: Fundamental Concepts and Applications. Advanced Materials, 2019, 31, e1901483.	21.0	130
23	Single-ion tracks in<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:msub><mml:mrow><mml:mtext>Gd</mml:mtext></mml:mrow><mml:mn>2</mml:mn></mml:msub></mml:mrow></mml:math>. Physical Review B, 2009, 79, .	3.2	126
24	Pore geometry of etched ion tracks in polyimide. Nuclear Instruments & Methods in Physics Research B, 1996, 111, 70-74.	1.4	114
25	Microstructured glass chip for ion-channel electrophysiology. Physical Review E, 2001, 64, 040901.	2.1	110
26	Structural modifications of Gd₂Zr_{2-x}Ti_xO₇ pyrochlore induced by swift heavy ions: Disordering and amorphization. Journal of Materials Research, 2009, 24, 1322-1334.	2.6	110
27	Damage and track morphology in LiF crystals irradiated with GeV ions. Physical Review B, 1998, 58, 11232-11240.	3.2	109
28	Damage structure in the ionic crystal LiF irradiated with swift heavy ions. Nuclear Instruments & Methods in Physics Research B, 2000, 164-165, 365-376.	1.4	103
29	Radiation damage in UO2 by swift heavy ions. Nuclear Instruments & Methods in Physics Research B, 1997, 122, 583-588.	1.4	101
30	Track size and track structure in polymer irradiated by heavy ions. Nuclear Instruments & Methods in Physics Research B, 1998, 146, 468-474.	1.4	101
31	3D tissue culture substrates produced by microthermoforming of pre-processed polymer films. Biomedical Microdevices, 2006, 8, 191-199.	2.8	100
32	Nanofluidic Diodes with Dynamic Rectification Properties Stemming from Reversible Electrochemical Conversions in Conducting Polymers. Journal of the American Chemical Society, 2015, 137, 15382-15385.	13.7	94
33	Highly Sensitive Biosensing with Solid-State Nanopores Displaying Enzymatically Reconfigurable Rectification Properties. Nano Letters, 2018, 18, 3303-3310.	9.1	91
34	Pyrolytic effects induced by energetic ions in polymers. Nuclear Instruments & Methods in Physics Research B, 1999, 151, 161-168.	1.4	90
35	Etched heavy ion tracks in polycarbonate as template for copper nanowires. Nuclear Instruments & Methods in Physics Research B, 2001, 185, 192-197.	1.4	90
36	Characterization of swift heavy ion tracks in CaF2 by scanning force and transmission electron microscopy. Nuclear Instruments & Methods in Physics Research B, 2005, 240, 819-828.	1.4	88

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37	Direct detection of human adenovirus or SARS-CoV-2 with ability to inform infectivity using DNA aptamer-nanopore sensors. Science Advances, 2021, 7, eabh2848.	10.3	87
38	Etching threshold for ion tracks in polyimide. Nuclear Instruments & Methods in Physics Research B, 1996, 116, 429-433.	1.4	85
39	Nanoscale manipulation of the properties of solids at high pressure with relativistic heavy ions. Nature Materials, 2009, 8, 793-797.	27.5	85
40	Hostâ€“guest supramolecular chemistry in solid-state nanopores: potassium-driven modulation of ionic transport in nanofluidic diodes. Nanoscale, 2015, 7, 15594-15598.	5.6	82
41	Color-center creation inLiFunder irradiation with swift heavy ions: Dependence on energy loss and fluence. Physical Review B, 2004, 70, .	3.2	80
42	Shape matters: Enhanced osmotic energy harvesting in bullet-shaped nanochannels. Nano Energy, 2020, 71, 104612.	16.0	80
43	Tracks of swift heavy ions in graphite studied by scanning tunneling microscopy. Physical Review B, 2001, 64, .	3.2	79
44	Polyimide microfluidic devices with integrated nanoporous filtration areas manufactured by micromachining and ion track technology. Journal of Micromechanics and Microengineering, 2004, 14, 324-331.	2.6	79
45	Chemical etching of ion tracks in LiF crystals. Journal of Applied Physics, 1998, 83, 3560-3564.	2.5	74
46	Electronic sputtering of metals and insulators by swift heavy ions. Nuclear Instruments & Methods in Physics Research B, 2003, 212, 346-357.	1.4	74
47	Redox response of actinide materials to highly ionizing radiation. Nature Communications, 2015, 6, 6133.	12.8	72
48	Effect of electronic energy loss and irradiation temperature on color-center creation in LiF and NaCl crystals irradiated with swift heavy ions. Physical Review B, 2008, 78, .	3.2	70
49	Flexible fluidic microchips based on thermoformed and locally modified thin polymer films. Lab on A Chip, 2008, 8, 1570.	6.0	69
50	An Allâ€Plastic Fieldâ€Effect Nanofluidic Diode Gated by a Conducting Polymer Layer. Advanced Materials, 2017, 29, 1700972.	21.0	68
51	Dense and nanometric electronic excitations induced by swift heavy ions in an ionic CaF2crystal: Evidence for two thresholds of damage creation. Physical Review B, 2012, 85, .	3.2	67
52	TiO₂, SiO₂, and Al₂O₃coated nanopores and nanotubes produced by ALD in etched ion-track membranes for transport measurements. Nanotechnology, 2015, 26, 335301.	2.6	67
53	Advances in understanding of swift heavy-ion tracks in complex ceramics. Current Opinion in Solid State and Materials Science, 2015, 19, 39-48.	11.5	66
54	Radiation defects in lithium fluoride induced by heavy ions. Nuclear Instruments & Methods in Physics Research B, 1998, 146, 367-378.	1.4	65

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55	Morphology of latent and etched heavy ion tracks in radiation resistant polymers polyimide and poly(ethylene naphthalate). Nuclear Instruments & Methods in Physics Research B, 2001, 185, 216-221.	1.4	65
56	Structural response of titanate pyrochlores to swift heavy ion irradiation. Acta Materialia, 2016, 117, 207-215.	7.9	64
57	Tracks of very heavy ions in polymers. Nuclear Instruments & Methods in Physics Research B, 1997, 131, 55-63.	1.4	62
58	Response of Gd2Ti2O7 and La2Ti2O7 to swift-heavy ion irradiation and annealing. Acta Materialia, 2015, 93, 1-11.	7.9	62
59	Colour centre production in yttria-stabilized zirconia by swift charged particle irradiations. Journal of Physics Condensed Matter, 2004, 16, 3957-3971.	1.8	60
60	Investigation of nanopore evolution in ion track-etched polycarbonate membranes. Nuclear Instruments & Methods in Physics Research B, 2007, 265, 553-557.	1.4	60
61	Similar local order in disordered fluorite and aperiodic pyrochlore structures. Acta Materialia, 2018, 144, 60-67.	7.9	60
62	Nanofluidic osmotic power generators â€“ advanced nanoporous membranes and nanochannels for blue energy harvesting. Chemical Science, 2021, 12, 12874-12910.	7.4	60
63	Heavy-ion irradiation of pyrochlore oxides: Comparison between low and high energy regimes. Nuclear Instruments & Methods in Physics Research B, 2008, 266, 3043-3047.	1.4	59
64	Annealing kinetics of latent particle tracks in Durango apatite. Physical Review B, 2011, 83, .	3.2	59
65	Rectification properties of conically shaped nanopores: consequences of miniaturization. Physical Chemistry Chemical Physics, 2013, 15, 16917.	2.8	59
66	Nanoporous SiO2/Si thin layers produced by ion track etching: Dependence on the ion energy and criterion for etchability. Journal of Applied Physics, 2008, 104, .	2.5	58
67	Thermal annealing mechanisms of latent fission tracks: Apatite vs. zircon. Earth and Planetary Science Letters, 2011, 302, 227-235.	4.4	58
68	Electronic excitations and heavy-ion-induced processes in ionic crystals. Nuclear Instruments & Methods in Physics Research B, 2003, 209, 73-84.	1.4	57
69	Phosphateâ€Responsive Biomimetic Nanofluidic Diodes Regulated by Polyamineâ€“Phosphate Interactions: Insights into Their Functional Behavior from Theory and Experiment. Small, 2018, 14, e1702131.	10.0	57
70	Preferred growth orientation of metallic fcc nanowires under direct and alternating electrodeposition conditions. Nanotechnology, 2007, 18, 135709.	2.6	55
71	Fabrication of nanoporous graphene/polymer composite membranes. Nanoscale, 2017, 9, 10487-10493.	5.6	55
72	Ion track diameters in mica studied with scanning force microscopy. Nuclear Instruments & Methods in Physics Research B, 1996, 107, 181-184.	1.4	53

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73	Role of composition, bond covalency, and short-range order in the disordering of stannate pyrochlores by swift heavy ion irradiation. Physical Review B, 2016, 94, .	3.2	53
74	Effect of Stress on Track Formation in Amorphous Iron Boron Alloy: Ion Tracks as Elastic Inclusions. Physical Review Letters, 2000, 85, 3648-3651.	7.8	52
75	Conductivity of nanometer-sized ion tracks in diamond-like carbon films. Journal of Applied Physics, 2003, 94, 1959-1964.	2.5	52
76	Creation of colour centres in diamond by collimated ionâ€implantation through nanoâ€channels in mica. Physica Status Solidi (A) Applications and Materials Science, 2011, 208, 2017-2022.	1.8	52
77	Phase Transitions in Solids Stimulated by Simultaneous Exposure to High Pressure and Relativistic Heavy Ions. Physical Review Letters, 2006, 96, 195701.	7.8	51
78	Thick optical waveguides in lithium niobate induced by swift heavy ions (~10 MeV/amu) at ultralow fluences. Optics Express, 2009, 17, 24175.	3.4	49
79	Optical spectroscopy study of damage induced in 4H-SiC by swift heavy ion irradiation. Journal of Physics Condensed Matter, 2012, 24, 125801.	1.8	49
80	Shrinking of Rapidly Evaporating Water Microdroplets Reveals their Extreme Supercooling. Physical Review Letters, 2018, 120, 015501.	7.8	49
81	Redox-Driven Reversible Gating of Solid-State Nanochannels. ACS Applied Materials & Interfaces, 2019, 11, 30001-30009.	8.0	49
82	Copper nanowires electrodeposited in etched single-ion track templates. Applied Physics A: Materials Science and Processing, 2003, 77, 751-755.	2.3	48
83	Creation of nanosize defects in LiF crystals under 5- and<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:mn>10</mml:mn><mml:mtext>â^'</mml:mtext><mml:mi>MeV</mml:mi></mml:mrow></mml:m ion irradiation at room temperature. Physical Review B, 2007, 76, .	3.2	48
84	Potential energy threshold for nano-hillock formation by impact of slow highly charged ions on a CaF2(111) surface. Nuclear Instruments & Methods in Physics Research B, 2007, 258, 167-171.	1.4	48
85	Swift heavy ion track formation in Gd2Zr2â^'Ti O7 pyrochlore: Effect of electronic energy loss. Nuclear Instruments & Methods in Physics Research B, 2014, 336, 102-115.	1.4	48
86	Degradation of polyimide under irradiation with swift heavy ions. Nuclear Instruments & Methods in Physics Research B, 2005, 236, 456-460.	1.4	47
87	Structural phase transition in induced by swift heavy ion irradiation at high-pressure. Nuclear Instruments & Methods in Physics Research B, 2009, 267, 964-968.	1.4	47
88	Evidence of blocking effects on 3-keV Ne<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:msup><mml:mrow /><mml:mrow><mml:mn>7</mml:mn><mml:mo>+</mml:mo></mml:mrow></mml:msup></mml:mrow></mml:math>ions guided through nanocapillaries in polycarbonate. Physical Review A, 2011, 83, .	2.5	47
89	Noncovalent functionalization of solid-state nanopores via self-assembly of amphipols. Nanoscale, 2016, 8, 1470-1478.	5.6	47
90	Biomimetic solid-state nanochannels for chemical and biological sensing applications. TrAC - Trends in Analytical Chemistry, 2021, 144, 116425.	11.4	47

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91	Applied nuclear physics at the new high-energy particle accelerator facilities. Physics Reports, 2019, 800, 1-37.	25.6	46
92	Specificity of ion induced damage. Nuclear Instruments & Methods in Physics Research B, 1999, 156, 162-169.	1.4	45
93	Grain size effects on irradiated CeO2, ThO2, and UO2. Acta Materialia, 2018, 160, 47-56.	7.9	45
94	Ion-induced formation of colloids in LiF at 15 K. Physical Review B, 1997, 56, 10711-10714.	3.2	44
95	Swelling of insulators induced by swift heavy ions. Nuclear Instruments & Methods in Physics Research B, 2002, 191, 144-148.	1.4	44
96	Study of the damage produced in CaF2 by swift heavy ion irradiation. Nuclear Instruments & Methods in Physics Research B, 2002, 191, 301-305.	1.4	44
97	On the nano-hillock formation induced by slow highly charged ions on insulator surfaces. Solid-State Electronics, 2007, 51, 1398-1404.	1.4	44
98	Irradiation-induced stabilization of zircon (ZrSiO4) at high pressure. Earth and Planetary Science Letters, 2008, 269, 291-295.	4.4	44
99	Forging Fast Ion Conducting Nanochannels with Swift Heavy Ions: The Correlated Role of Local Electronic and Atomic Structure. Journal of Physical Chemistry C, 2017, 121, 975-981.	3.1	44
100	Guided transmission ofNe7+ions through nanocapillaries in insulating polymers: Scaling laws for projectile energies up to 50 keV. Physical Review A, 2009, 79, .	2.5	42
101	Amorphization of nanocrystalline monoclinic ZrO2 by swift heavy ion irradiation. Physical Chemistry Chemical Physics, 2012, 14, 12295.	2.8	42
102	SAXS investigations of the morphology of swift heavy ion tracks in Î±-quartz. Journal of Physics Condensed Matter, 2013, 25, 045006.	1.8	41
103	Defect accumulation in ThO2 irradiated with swift heavy ions. Nuclear Instruments & Methods in Physics Research B, 2014, 326, 169-173.	1.4	41
104	APPA at FAIR: From fundamental to applied research. Nuclear Instruments & Methods in Physics Research B, 2015, 365, 680-685.	1.4	41
105	Phase transformations in<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:msub><mml:mi>Ln</mml:mi><mml:mn>2</mml:mn></mml:msub><mml:msub><mml:mi mathvariant="normal">O</mml:mi><mml:mn>3</mml:mn></mml:msub></mml:mrow></mml:math>materials irradiated with swift heavy ions. Physical Review B, 2015, 92, .	3.2	41
106	MeV gold irradiation induced damage in Î±-quartz: Competition between nuclear and electronic stopping. Nuclear Instruments & Methods in Physics Research B, 2001, 178, 331-336.	1.4	40
107	Confined fission tracks in ion-irradiated and step-etched prismatic sections of Durango apatite. Chemical Geology, 2007, 242, 202-217.	3.3	40
108	Fission tracks simulated by swift heavy ions at crustal pressures and temperatures. Earth and Planetary Science Letters, 2008, 274, 355-358.	4.4	40

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109	Study of heavy-ion induced modifications in BaF2 and LaF3 single crystals. Nuclear Instruments & Methods in Physics Research B, 2004, 218, 492-497.	1.4	39
110	Cylindrical nanochannels in ion-track polycarbonate membranes studied by small-angle X-ray scattering. Journal of Applied Crystallography, 2007, 40, s388-s392.	4.5	39
111	Multipole Surface Plasmon Resonances in Conductively Coupled Metal Nanowire Dimers. ACS Nano, 2012, 6, 9711-9717.	14.6	39
112	Amine-Phosphate Specific Interactions within Nanochannels: Binding Behavior and Nanoconfinement Effects. Journal of Physical Chemistry C, 2019, 123, 28997-29007.	3.1	39
113	Polyaniline for Improved Blue Energy Harvesting: Highly Rectifying Nanofluidic Diodes Operating in Hypersaline Conditions via One-Step Functionalization. ACS Applied Materials & Interfaces, 2020, 12, 28148-28157.	8.0	39
114	Effect of ion irradiation and heat treatment on adhesion in the Cu / Teflon system. Journal of Adhesion Science and Technology, 1995, 9, 1523-1529.	2.6	38
115	Track structure in polyethylene terephthalate irradiated by heavy ions: Let dependence of track diameter. Radiation Measurements, 1999, 31, 51-56.	1.4	38
116	Field emission properties of electrochemically deposited gold nanowires. Applied Physics Letters, 2008, 92, 063115.	3.3	38
117	Nanopores in track-etched polymer membranes characterized by small-angle x-ray scattering. Nanotechnology, 2010, 21, 155702.	2.6	38
118	Observation and chemical treatment of heavy-ion tracks in polymers. Nuclear Instruments & Methods in Physics Research B, 1995, 105, 81-85.	1.4	37
119	Electronic Sputtering with Swift Heavy Ions. , 2007, , 401-450.		37
120	Response behavior of ZrO2 under swift heavy ion irradiation with and without external pressure. Nuclear Instruments & Methods in Physics Research B, 2012, 277, 45-52.	1.4	37
121	The Influence of Divalent Anions on the Rectification Properties of Nanofluidic Diodes: Insights from Experiments and Theoretical Simulations. ChemPhysChem, 2016, 17, 2718-2725.	2.1	37
122	Vertically-Aligned Single-Crystal Nanocone Arrays: Controlled Fabrication and Enhanced Field Emission. ACS Applied Materials & Interfaces, 2016, 8, 472-479.	8.0	37
123	Noncovalent Approach toward the Construction of Nanofluidic Diodes with pH-Reversible Rectifying Properties: Insights from Theory and Experiment. Journal of Physical Chemistry C, 2017, 121, 9070-9076.	3.1	37
124	Chemical degradation of polyimide and polysulfone films under the irradiation with heavy ions of several hundred meV. Journal of Polymer Science Part A, 1999, 37, 4318-4329.	2.3	36
125	Field emission of copper nanowires grown in polymer ion-track membranes. Nuclear Instruments & Methods in Physics Research B, 2006, 245, 337-341.	1.4	36
126	Characterization of ion-induced radiation effects in nuclear materials using synchrotron x-ray techniques. Journal of Materials Research, 2015, 30, 1366-1379.	2.6	36

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127	Defect accumulation in swift heavy ion-irradiated CeO₂ and ThO₂. Journal of Materials Chemistry A, 2017, 5, 12193-12201.	10.3	36
128	Discontinuous tracks in arsenic-doped crystallineSi0.5Ge0.5alloy layers. Physical Review B, 2002, 66, .	3.2	35
129	Swift heavy ion-induced swelling and damage in yttria-stabilized zirconia. Journal of Applied Physics, 2007, 101, 073501.	2.5	35
130	Scanning force microscopy of heavy-ion tracks in lithium fluoride. Nuclear Instruments & Methods in Physics Research B, 1998, 146, 393-398.	1.4	34
131	Protonâ€Gated Rectification Regimes in Nanofluidic Diodes Switched by Chemical Effectors. Small, 2018, 14, e1703144.	10.0	34
132	Heavy Ion Radiation Effects on Hafnium Oxide-Based Resistive Random Access Memory. IEEE Transactions on Nuclear Science, 2019, 66, 1715-1718.	2.0	34
133	Shape of nanopores in track-etched polycarbonate membranes. Journal of Membrane Science, 2021, 638, 119681.	8.2	34
134	Microthermoforming as a novel technique for manufacturing scaffolds in tissue engineering (CellChipsÂ®). IET Nanobiotechnology, 2004, 151, 151.	2.1	33
135	Swift heavy ion-induced amorphization of CaZrO3 perovskite. Nuclear Instruments & Methods in Physics Research B, 2012, 286, 271-276.	1.4	33
136	Investigation of heavy ion tracks in polymers by transmission electron microscopy. Nuclear Instruments & Methods in Physics Research B, 2001, 185, 210-215.	1.4	32
137	Color center creation in LiF crystals irradiated with 5- and 10-MeV Au ions. Nuclear Instruments & Methods in Physics Research B, 2008, 266, 2736-2740.	1.4	32
138	Tailoring of keV-Ion Beams by Image Charge when Transmitting through Rhombic and Rectangular Shaped Nanocapillaries. Physical Review Letters, 2012, 108, 193202.	7.8	32
139	Silver nanostructures formation in porous Si/SiO2 matrix. Journal of Crystal Growth, 2014, 400, 21-26.	1.5	32
140	Conformal SiO2 coating of sub-100 nm diameter channels of polycarbonate etched ion-track channels by atomic layer deposition. Beilstein Journal of Nanotechnology, 2015, 6, 472-479.	2.8	32
141	Characterization of heavy ion tracks in polymers by transmission electron microscopy. Journal of Polymer Science, Part B: Polymer Physics, 2003, 41, 2892-2901.	2.1	31
142	Discontinuous tracks in relaxed Si0.5Ge0.5 alloy layers: A velocity effect. Applied Physics Letters, 2003, 83, 1746-1748.	3.3	31
143	Raman spectroscopy of apatite irradiated with swift heavy ions with and without simultaneous exertion of high pressure. Applied Physics A: Materials Science and Processing, 2008, 91, 17-22.	2.3	31
144	Swift heavy ion-induced phase transformation in Gd2O3. Nuclear Instruments & Methods in Physics Research B, 2014, 326, 121-125.	1.4	31

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145	Liquid-like phase formation in Gd2Zr2O7 by extremely ionizing irradiation. Journal of Applied Physics, 2009, 105, .	2.5	30
146	Morphology of swift heavy ion tracks in metallic glasses. Journal of Non-Crystalline Solids, 2012, 358, 571-576.	3.1	30
147	Confinement Effects of Ion Tracks in Ultrathin Polymer Films. Physical Review Letters, 2015, 114, 118302.	7.8	30
148	Surface Enrichment in Auâ€“Ag Alloy Nanowires and Investigation of the Dealloying Process. Journal of Physical Chemistry C, 2015, 119, 20949-20956.	3.1	30
149	Electrodeposition and electroless plating of hierarchical metal superstructures composed of 1D nano- and microscale building blocks. Electrochimica Acta, 2016, 202, 47-54.	5.2	30
150	Towards a nanostructured thermoelectric generator using ion-track lithography. Journal of Micromechanics and Microengineering, 2008, 18, 104015.	2.6	29
151	Characterization of swift heavy ion irradiation damage in ceria. Journal of Materials Research, 2015, 30, 1473-1484.	2.6	29
152	Shedding light on the mechanism of asymmetric track etching: an interplay between latent track structure, etchant diffusion and osmotic flow. Physical Chemistry Chemical Physics, 2016, 18, 25421-25433.	2.8	29
153	Vacuum ultraviolet absorption and ion track effects in LiF crystals irradiated with swift ions. Physical Review B, 2002, 66, .	3.2	28
154	STM and Raman spectroscopic study of graphite irradiated by heavy ions. Nuclear Instruments & Methods in Physics Research B, 2003, 212, 303-307.	1.4	28
155	CHARGE SPECTRUM OF HEAVY AND SUPERHEAVY COMPONENTS OF GALACTIC COSMIC RAYS: RESULTS OF THE OLIMPIYA EXPERIMENT. Astrophysical Journal, 2016, 829, 120.	4.5	28
156	Stopping power dependence of ion track etching in amorphous metallic Fe81B13.5 Si3.5C2. Nuclear Instruments & Methods in Physics Research B, 1993, 83, 513-517.	1.4	27
157	Etching of nanopores in polycarbonate irradiated with swift heavy ions at 15K. Nuclear Instruments & Methods in Physics Research B, 2006, 245, 284-287.	1.4	27
158	Surface nanostructuring of SrTiO3 single crystals by slow highly charged ions and swift heavy ions. Nuclear Instruments & Methods in Physics Research B, 2011, 269, 1234-1237.	1.4	27
159	Radiolysis and sputtering of carbon dioxide ice induced by swift Ti, Ni, and Xe ions. Nuclear Instruments & Methods in Physics Research B, 2015, 365, 477-481.	1.4	27
160	Study of ion beam induced swelling in fluorite as an inert matrix model. Progress in Nuclear Energy, 2001, 38, 271-274.	2.9	26
161	Heavy-ion induced damage in fluorite nanopowder. Nuclear Instruments & Methods in Physics Research B, 2001, 175-177, 590-593.	1.4	26
162	Magnetic and optical properties of cobalt nanowires fabricated in polycarbonate ion-track templates. Nuclear Instruments & Methods in Physics Research B, 2009, 267, 2567-2570.	1.4	26

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163	Nano-hillock formation in diamond-like carbon induced by swift heavy projectiles in the electronic stopping regime: Experiments and atomistic simulations. Applied Physics Letters, 2012, 101, .	3.3	26
164	Effect of spatial redistribution of valence holes on the formation of a defect halo of swift heavy-ion tracks in LiF. Physical Review B, 2013, 87, .	3.2	26
165	Effect of orientation on ion track formation in apatite and zircon. American Mineralogist, 2014, 99, 1127-1132.	1.9	26
166	Nanoscale density variations induced by high energy heavy ions in amorphous silicon nitride and silicon dioxide. Nanotechnology, 2018, 29, 144004.	2.6	26
167	Damage produced in magnesium aluminate spinel by high energy heavy ions including fission products of fission energy: microstructure modifications. Progress in Nuclear Energy, 2001, 38, 281-286.	2.9	25
168	Hardening and long-range stress formation in lithium fluoride induced by energetic ions. Nuclear Instruments & Methods in Physics Research B, 2003, 209, 93-97.	1.4	25
169	The effect of columnar defects on the pinning properties of NdFeAsO_{0.85}conglomerate particles. Superconductor Science and Technology, 2009, 22, 125023.	3.5	25
170	Effect of irradiation parameters on defect aggregation during thermal annealing of LiF irradiated with swift ions and electrons. Physical Review B, 2010, 82, .	3.2	25
171	Swift heavy ion irradiation-induced amorphization of La2Ti2O7. Nuclear Instruments & Methods in Physics Research B, 2014, 326, 145-149.	1.4	25
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