Oskar Paris

List of Publications by Year in descending order

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134	7,220	47	81
papers	citations	h-index	g-index
136	136	136	8774
all docs	docs citations	times ranked	citing authors

#	Article	IF	CITATIONS
1	Nanoporous polymer-derived activated carbon for hydrogen adsorption and electrochemical energy storage. Chemical Engineering Journal, 2022, 427, 131730.	6.6	38
2	Development of foam-like emulsion phases in porous media flow. Journal of Colloid and Interface Science, 2022, 608, 1064-1073.	5 . 0	8
3	Bowtie-Shaped Deformation Isotherm of Superhydrophobic Cylindrical Mesopores. Langmuir, 2022, 38, 211-220.	1.6	1
4	Small-angle scattering from spherical particles on randomly oriented interfaces. International Journal of Materials Research, 2022, 97, 290-294.	0.1	0
5	Hybrid carbon spherogels: carbon encapsulation of nano-titania. Chemical Communications, 2021, 57, 3905-3908.	2.2	7
6	A Facile Oneâ€Pot Synthesis of Hierarchically Organized Carbon/TiO ₂ Monoliths with Ordered Mesopores. ChemPlusChem, 2021, 86, 275-283.	1.3	3
7	Adsorption-induced deformation of hierarchical organised carbon materials with ordered, non-convex mesoporosity. Molecular Physics, 2021, 119, .	0.8	5
8	Hierarchically organized materials with ordered mesopores: adsorption isotherm and adsorption-induced deformation from small-angle scattering. Physical Chemistry Chemical Physics, 2020, 22, 12713-12723.	1.3	4
9	Capillary bridge formation between hexagonally ordered carbon nanorods. Adsorption, 2020, 26, 563-578.	1.4	4
10	Hierarchically Organized and Anisotropic Porous Carbon Monoliths. Chemistry of Materials, 2020, 32, 3944-3951.	3.2	19
11	In Situ Small-Angle Neutron Scattering Investigation of Adsorption-Induced Deformation in Silica with Hierarchical Porosity. Langmuir, 2019, 35, 11590-11600.	1.6	11
12	Reversibly compressible and freestanding monolithic carbon spherogels. Carbon, 2019, 153, 189-195.	5.4	11
13	Nanofibers versus Nanopores: A Comparison of the Electrochemical Performance of Hierarchically Ordered Porous Carbons. ACS Applied Energy Materials, 2019, 2, 5279-5291.	2.5	15
14	Towards Real-Time Ion-Specific Structural Sensitivity in Nanoporous Carbon Electrodes Using In Situ Anomalous Small-Angle X-ray Scattering. ACS Applied Materials & Samp; Interfaces, 2019, 11, 42214-42220.	4.0	13
15	Mechanical Characterization of Hierarchical Structured Porous Silica by in Situ Dilatometry Measurements during Gas Adsorption. Langmuir, 2019, 35, 2948-2956.	1.6	12
16	The influence of drying and calcination on surface chemistry, pore structure and mechanical properties of hierarchically organized porous silica monoliths. Microporous and Mesoporous Materials, 2019, 288, 109578.	2.2	16
17	Comparing pore structure models of nanoporous carbons obtained from small angle X-ray scattering and gas adsorption. Carbon, 2019, 152, 416-423.	5.4	28
18	Plasma-Derived Graphene-Based Materials for Water Purification and Energy Storage. Journal of Carbon Research, 2019, 5, 16.	1.4	7

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19	A new device for high-temperature <i>in situ</i> GISAXS measurements. Review of Scientific Instruments, 2018, 89, 035103.	0.6	4
20	Salt concentration and charging velocity determine ion charge storage mechanism in nanoporous supercapacitors. Nature Communications, 2018, 9, 4145.	5.8	85
21	3D Printing of Hierarchical Porous Silica and αâ€Quartz. Advanced Materials Technologies, 2018, 3, 1800060.	3.0	27
22	Complementary High Spatial Resolution Methods in Materials Science and Engineering. Advanced Engineering Materials, 2017, 19, 1600671.	1.6	5
23	Microporous novolac-derived carbon beads/sulfur hybrid cathode for lithium-sulfur batteries. Journal of Power Sources, 2017, 357, 198-208.	4.0	33
24	Adsorption-Induced Deformation of Hierarchically Structured Mesoporous Silica—Effect of Pore-Level Anisotropy. Langmuir, 2017, 33, 5592-5602.	1.6	47
25	Hierarchical Architectures to Enhance Structural and Functional Properties of Brittle Materials. Advanced Engineering Materials, 2017, 19, 1600683.	1.6	10
26	Setting Directions: Anisotropy in Hierarchically Organized Porous Silica. Chemistry of Materials, 2017, 29, 7969-7975.	3.2	16
27	Biological fabrication of cellulose fibers with tailored properties. Science, 2017, 357, 1118-1122.	6.0	35
28	Nanoporous activated carbon cloth as a versatile material for hydrogen adsorption, selective gas separation and electrochemical energy storage. Nano Energy, 2017, 40, 49-64.	8.2	101
29	In Situ Measurement of Electrosorption-Induced Deformation Reveals the Importance of Micropores in Hierarchical Carbons. ACS Applied Materials & Samp; Interfaces, 2017, 9, 23319-23324.	4.0	29
30	Quantifying adsorption-induced deformation of nanoporous materials on different length scales. Journal of Applied Crystallography, 2017, 50, 1404-1410.	1.9	12
31	A carbon nanopore model to quantify structure and kinetics of ion electrosorption with in situ small-angle X-ray scattering. Physical Chemistry Chemical Physics, 2017, 19, 15549-15561.	1.3	39
32	Cantilever bending based on humidity-actuated mesoporous silica/silicon bilayers. Beilstein Journal of Nanotechnology, 2016, 7, 637-644.	1.5	15
33	Moistureâ€Driven Ceramic Bilayer Actuators from a Biotemplating Approach. Advanced Materials, 2016, 28, 5235-5240.	11.1	48
34	Passive and active mechanical properties of biotemplated ceramics revisited. Bioinspiration and Biomimetics, 2016, 11, 065001.	1.5	6
35	Structural analysis of Gossypium hirsutum fibers grown under greenhouse and hydroponic conditions. Journal of Structural Biology, 2016, 194, 292-302.	1.3	9
36	Pore shape and sorption behaviour in mesoporous ordered silica films. Journal of Applied Crystallography, 2016, 49, 1713-1720.	1.9	7

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37	Tracking the structural arrangement of ions in carbon supercapacitor nanopores using in situ small-angle X-ray scattering. Energy and Environmental Science, 2015, 8, 1725-1735.	15.6	126
38	Considerations on the model-free shape retrieval of inorganic nanocrystals from small-angle scattering data. Journal of Applied Crystallography, 2015, 48, 857-868.	1.9	13
39	Relationship Between Pore Structure and Sorption-Induced Deformation in Hierarchical Silica-Based Monoliths. Zeitschrift Fur Physikalische Chemie, 2015, 229, 1189-1209.	1.4	23
40	The effects of water uptake on mechanical properties of viscose fibers. Cellulose, 2015, 22, 2777-2786.	2.4	21
41	The role of topology and thermal backbone fluctuations on sacrificial bond efficacy in mechanical metalloproteins. New Journal of Physics, 2014, 16, 013003.	1.2	15
42	Crystal Phase Transitions in the Shell of PbS/CdS Core/Shell Nanocrystals Influences Photoluminescence Intensity. Chemistry of Materials, 2014, 26, 5914-5922.	3.2	44
43	The structural evolution of multi-layer graphene stacks in carbon fibers under load at high temperature – A synchrotron radiation study. Carbon, 2014, 80, 373-381.	5.4	11
44	Pore characteristics and mechanical properties of silica templated by wood. Bioinspired, Biomimetic and Nanobiomaterials, 2014, 3, 160-168.	0.7	14
45	Humidity-driven deformation of ordered mesoporous silica films. Bioinspired, Biomimetic and Nanobiomaterials, 2014, 3, 183-190.	0.7	21
46	Bioinspired composites – next generation of materials and devices. Bioinspired, Biomimetic and Nanobiomaterials, 2014, 3, 121-122.	0.7	1
47	A customizable software for fast reduction and analysis of large X-ray scattering data sets: applications of the new <i>DPDAK</i> package to small-angle X-ray scattering and grazing-incidence small-angle X-ray scattering and grazing-incidence small-angle X-ray scattering. Journal of Applied Crystallography, 2014, 47, 1797-1803.	1.9	244
48	Elastic properties of graphene obtained by computational mechanical tests. Europhysics Letters, 2013, 103, 68004.	0.7	25
49	Development of the Fibrillar and Microfibrillar Structure During Biomimetic Mineralization of Wood. Advanced Functional Materials, 2013, 23, 1265-1272.	7.8	43
50	Adsorption of n-Pentane on Mesoporous Silica and Adsorbent Deformation. Langmuir, 2013, 29, 8601-8608.	1.6	71
51	Recent Progress in the Replication of Hierarchical Biological Tissues. Advanced Functional Materials, 2013, 23, 4408-4422.	7.8	39
52	CHAPTER 8. The Mineralized Crustacean Cuticle: Hierarchical Structure and Mechanical Properties. RSC Smart Materials, 2013, , 180-196.	0.1	5
53	Oriented aggregation of calcium silicate hydrate platelets by the use of comb-like copolymers. Soft Matter, 2013, 9, 4864.	1,2	78
54	Water Melting Induced Deformation of Ordered Nanoporous Silica. , 2013, , .		0

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55	Repeated sorption of water in SBA-15 investigated by means of <i>in situ</i> small-angle x-ray scattering. Journal of Physics Condensed Matter, 2012, 24, 284112.	0.7	11
56	Deformation mechanism of nanoporous materials upon water freezing and melting. Applied Physics Letters, 2012, 101, .	1.5	11
57	The pomelo peel and derived nanoscale-precision gradient silica foams. Bioinspired, Biomimetic and Nanobiomaterials, 2012, 1, 117-122.	0.7	11
58	Density minimum of confined water at low temperatures: a combined study by small-angle scattering of X-rays and neutrons. Physical Chemistry Chemical Physics, 2012, 14, 3852.	1.3	76
59	Hierarchical Calcite Crystals with Occlusions of a Simple Polyelectrolyte Mimic Complex Biomineral Structures. Advanced Functional Materials, 2012, 22, 4668-4676.	7.8	69
60	Transparent cellulose sheets as synthesis matrices for inorganic functional particles. Carbohydrate Polymers, 2012, 87, 257-264.	5.1	13
61	Apparent lattice expansion in ordered nanoporous silica during capillary condensation of fluids. Journal of Applied Crystallography, 2012, 45, 798-806.	1.9	12
62	Effect of particle size and Debye length on order parameters of colloidal silica suspensions under confinement. Soft Matter, 2011, 7, 10899.	1,2	69
63	Nanostructure of Biogenic Calcite Crystals: A View by Small-Angle X-Ray Scattering. Crystal Growth and Design, 2011, 11, 2054-2058.	1.4	35
64	Infrared Emitting and Photoconducting Colloidal Silver Chalcogenide Nanocrystal Quantum Dots from a Silylamide-Promoted Synthesis. ACS Nano, 2011, 5, 3758-3765.	7.3	164
65	Structural Characterization of Surfactant Aggregates Adsorbed in Cylindrical Silica Nanopores. Langmuir, 2011, 27, 5252-5263.	1.6	33
66	Shell-Models for Multi-Layer Carbon Nano-Particles. Advanced Structured Materials, 2011, , 585-602.	0.3	3
67	Confinement-induced structural changes of water studied by Raman scattering. Physical Review B, 2011, 84, .	1.1	80
68	Mapping Lattice Spacing and Composition in Biological Materials by Means of Microbeam Xâ€Ray Diffraction. Advanced Engineering Materials, 2011, 13, 784-792.	1.6	7
69	Silica replication of the hierarchical structure of wood with nanometer precision. Journal of Materials Research, 2011, 26, 1193-1202.	1,2	37
70	Strontium is incorporated into mineral crystals only in newly formed bone during strontium ranelate treatment. Journal of Bone and Mineral Research, 2010, 25, 968-975.	3.1	108
71	Nanomechanical studies of the compressive behavior of carbon fibers. Journal of Materials Science, 2010, 45, 6845-6848.	1.7	6
72	On the mineral in collagen of human crown dentine. Biomaterials, 2010, 31, 5479-5490.	5.7	106

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73	Analysis of pore structure and gas adsorption in periodic mesoporous solids by in situ small-angle X-ray scattering. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2010, 357, 3-10.	2.3	16
74	In-situsmall-angle neutron scattering study of pore filling and pore emptying in ordered mesoporous silica. Journal of Applied Crystallography, 2010, 43, 1-7.	1.9	29
75	Scanning small-angle X-ray scattering analysis of the size and organization of the mineral nanoparticles in fluorotic bone using a stack of cards model. Journal of Applied Crystallography, 2010, 43, 1385-1392.	1.9	45
76	Biomimetics and Biotemplating of Natural Materials. MRS Bulletin, 2010, 35, 219-225.	1.7	79
77	Mapping amorphous calcium phosphate transformation into crystalline mineral from the cell to the bone in zebrafish fin rays. Proceedings of the National Academy of Sciences of the United States of America, 2010, 107, 6316-6321.	3.3	389
78	Curvature-induced excess surface energy of fullerenes: Density functional theory and Monte Carlo simulations. Physical Review B, 2010, 81, .	1.1	27
79	Pore-lattice deformations in ordered mesoporous matrices: experimental studies and theoretical analysis. Physical Chemistry Chemical Physics, 2010, 12, 11267.	1.3	29
80	Surfactant Self-Assembly in Cylindrical Silica Nanopores. Journal of Physical Chemistry Letters, 2010, 1, 1442-1446.	2.1	45
81	Fluid adsorption in ordered mesoporous solids determined by in situ small-angle X-ray scattering. Physical Chemistry Chemical Physics, 2010, 12, 7211.	1.3	41
82	The grinding tip of the sea urchin tooth exhibits exquisite control over calcite crystal orientation and Mg distribution. Proceedings of the National Academy of Sciences of the United States of America, 2009, 106, 6048-6053.	3.3	161
83	The Two Plastidial Starch-Related Dikinases Sequentially Phosphorylate Glucosyl Residues at the Surface of Both the A- and B-Type Allomorphs of Crystallized Maltodextrins But the Mode of Action Differs. Plant Physiology, 2009, 150, 962-976.	2.3	67
84	On the Stability of Amorphous Minerals in Lobster Cuticle. Advanced Materials, 2009, 21, 4011-4015.	11.1	74
85	Pore Structure and Fluid Sorption in Ordered Mesoporous Silica. II. Modeling. Journal of Physical Chemistry C, 2009, 113, 15211-15217.	1.5	28
86	Capillarity-driven deformation of ordered nanoporous silica. Applied Physics Letters, 2009, 95, 083121.	1.5	89
87	Pore Structure and Fluid Sorption in Ordered Mesoporous Silica. I. Experimental Study by in situ Small-Angle X-ray Scattering. Journal of Physical Chemistry C, 2009, 113, 15201-15210.	1.5	74
88	Calcium Phosphate with a Channel-like Morphology by Polymer Templating. Chemistry of Materials, 2009, 21, 1572-1578.	3.2	25
89	The implication of chemical extraction treatments on the cell wall nanostructure of softwood. Cellulose, 2008, 15, 407.	2.4	64
90	Insights into the chemical composition of Equisetum hyemale by high resolution Raman imaging. Planta, 2008, 227, 969-980.	1.6	109

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91	Microtexture and Chitin/Calcite Orientation Relationship in the Mineralized Exoskeleton of the American Lobster. Advanced Functional Materials, 2008, 18, 3307-3314.	7.8	145
92	Mapping fibre orientation in complex-shaped biological systems with micrometre resolution by scanning X-ray microdiffraction. Micron, 2008, 39, 198-205.	1.1	32
93	Glucan, water dikinase phosphorylates crystalline maltodextrins and thereby initiates solubilization. Plant Journal, 2008, 55, 323-334.	2.8	94
94	From diffraction to imaging: New avenues in studying hierarchical biological tissues with x-ray microbeams (Review). Biointerphases, 2008, 3, FB16-FB26.	0.6	70
95	Novel Insights into Nanopore Deformation Caused by Capillary Condensation. Physical Review Letters, 2008, 101, 086104.	2.9	110
96	Isolation of Mesoporous Biogenic Silica from the Perennial Plant <i>Equisetum hyemale</i> . Chemistry of Materials, 2008, 20, 2020-2025.	3.2	47
97	Stiffness gradients in vascular bundles of the palm <i>Washingtonia robusta</i> . Proceedings of the Royal Society B: Biological Sciences, 2008, 275, 2221-2229.	1.2	77
98	Continuous Structural Evolution of Calcium Carbonate Particles:Â A Unifying Model of Copolymer-Mediated Crystallization. Journal of the American Chemical Society, 2007, 129, 3729-3736.	6.6	240
99	Skin-core structure and bimodal Weibull distribution of the strength of carbon fibers. Carbon, 2007, 45, 2801-2805.	5.4	60
100	In situ X-ray diffraction investigation of thermal decomposition of wood cellulose. Journal of Analytical and Applied Pyrolysis, 2007, 80, 134-140.	2.6	65
101	Scanning texture analysis of lamellar bone using microbeam synchrotron X-ray radiation. Journal of Applied Crystallography, 2007, 40, 115-120.	1.9	68
102	Pore lattice deformation in ordered mesoporous silica studied by in situ small-angle X-ray diffraction. Journal of Applied Crystallography, 2007, 40, s522-s526.	1.9	30
103	Scanning X-ray imaging with small-angle scattering contrast. Journal of Applied Crystallography, 2007, 40, s78-s82.	1.9	54
104	Structural and analytical studies of silica accumulations in Equisetum hyemale. Analytical and Bioanalytical Chemistry, 2007, 389, 1249-1257.	1.9	46
105	A new experimental station for simultaneous X-ray microbeam scanning for small- and wide-angle scattering and fluorescence at BESSY II. Journal of Applied Crystallography, 2006, 40, s466-s470.	1.9	148
106	Hierarchically Structured Ceramics by High-Precision Nanoparticle Casting of Wood. Small, 2006, 2, 994-998.	5.2	68
107	A reconsideration of the relationship between the crystallite size La of carbons determined by X-ray diffraction and Raman spectroscopy. Carbon, 2006, 44, 3239-3246.	5.4	452
108	Small-Angle Scattering of S-Layer Metallization. Advanced Materials, 2006, 18, 915-919.	11.1	24

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109	Small-angle scattering from spherical particles on randomly oriented interfaces. International Journal of Materials Research, 2006, 97, 290-294.	0.8	1
110	Physisorbed films in periodic mesoporous silica studied byin situsynchrotron small-angle diffraction. Physical Review B, 2006, 73, .	1.1	100
111	Diffracting "stacks of cardsâ€⊷ some thoughts about small-angle scattering from bone. , 2005, , 33-39.		12
112	Decomposition and carbonisation of wood biopolymersâ€"a microstructural study of softwood pyrolysis. Carbon, 2005, 43, 53-66.	5.4	279
113	Structure and mechanical properties of carbon fibres: a review of recent microbeam diffraction studies with synchrotron radiation. Journal of Synchrotron Radiation, 2005, 12, 758-764.	1.0	19
114	Some introductory remarks on microbeam diffraction in nanobiosciences. Journal of Synchrotron Radiation, 2005, 12, 712-712.	1.0	2
115	Direct Observation of Nanocrystallite Buckling in Carbon Fibers under Bending Load. Physical Review Letters, 2005, 95, 225501.	2.9	69
116	Evolution of microstructures during dynamic recrystallization and dynamic recovery in hot deformed Nimonic 80a. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2004, 367, 198-204.	2.6	35
117	Elastic moduli of nanocrystallites in carbon fibers measured by in-situ X-ray microbeam diffraction. Carbon, 2003, 41, 563-570.	5.4	72
118	Influence of Cr23C6 carbides on dynamic recrystallization in hot deformed Nimonic 80a alloys. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2003, 358, 44-51.	2.6	28
119	Local microstructure and its influence on precipitation behavior in hot deformed Nimonic 80a. Acta Materialia, 2003, 51, 4149-4160.	3.8	21
120	Pole figure analysis of mineral nanoparticle orientation in individual trabecula of human vertebral bone. Journal of Applied Crystallography, 2003, 36, 494-498.	1.9	54
121	Separation of scattering contributions from carbides and \hat{I}^3 precipitates in Nimonic 80a by combining small-angle X-ray and neutron scattering. Journal of Applied Crystallography, 2003, 36, 484-488.	1.9	6
122	SANS investigation of phase separation in hot-deformed Nimonic 80a. Scripta Materialia, 2002, 47, 25-30.	2.6	8
123	Texture of PAN- and pitch-based carbon fibers. Carbon, 2002, 40, 551-555.	5.4	86
124	Microcracks in Carbon/Carbon Composites: A Microtomography Investigation using Synchrotron Radiation. Materials Research Society Symposia Proceedings, 2001, 678, 381.	0.1	3
125	Cross-sectional texture of carbon fibres analysed by scanning microbeam X-ray diffraction. Journal of Applied Crystallography, 2001, 34, 473-479.	1.9	23
126	The Use of Smallâ€Angle Xâ€Ray Diffraction Studies for the Analysis of Structural Features in Archaeological Samples. Archaeometry, 2001, 43, 117-129.	0.6	64

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127	Investigation of bone and cartilage by synchrotron scanning-SAXS and -WAXD with micrometer spatial resolution. Journal of Applied Crystallography, 2000, 33, 820-823.	1.9	37
128	The internal structure of single carbon fibers determined by simultaneous small- and wide-angle scattering. Journal of Applied Crystallography, 2000, 33, 695-699.	1.9	36
129	Imaging of the helical arrangement of cellulose fibrils in wood by synchrotron X-ray microdiffraction. Journal of Applied Crystallography, 1999, 32, 1127-1133.	1.9	123
130	Early stages of precipitate rafting in a single crystal NiAlMo model alloy investigated by small-angle X-ray scattering and TEM. Acta Materialia, 1997, 45, 1085-1097.	3.8	98
131	Bone mineralization in an osteogenesis imperfecta mouse model studied by small-angle x-ray scattering Journal of Clinical Investigation, 1996, 97, 396-402.	3.9	203
132	Breaking of Rotational Symmetry during Decomposition of Elastically Anisotropic Alloys. Physical Review Letters, 1995, 75, 3458-3461.	2.9	25
133	Influence of coherency stress on microstructural evolution in model Ni-Al-Mo alloys. Acta Metallurgica Et Materialia, 1995, 43, 1007-1022.	1.9	168
134	Evaluation of 3D small-angle scattering from non-spherical particles in single crystals. Journal of Applied Crystallography, 1993, 26, 820-826.	1.9	51