

Nigel M Kirby

List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/3732155/publications.pdf>

Version: 2024-02-01

122
papers

5,605
citations

100601

38
h-index

97045

71
g-index

123
all docs

123
docs citations

123
times ranked

9737
citing authors

#	ARTICLE	IF	CITATIONS
1	Stability, flow alignment and a phase transition of the lipidic cubic phase during continuous flow injection. <i>Journal of Colloid and Interface Science</i> , 2022, 611, 588-598.	5.0	3
2	Morphology evolution with polymer chain propagation and its impacts on device performance and stability of non-fullerene solar cells. <i>Journal of Materials Chemistry A</i> , 2021, 9, 556-565.	5.2	19
3	Fast in-situ X-ray scattering reveals stress sensitivity of gypsum dehydration kinetics. <i>Communications Materials</i> , 2021, 2, .	2.9	6
4	Origin of vertical slab orientation in blade-coated layered hybrid perovskite films revealed with in-situ synchrotron X-ray scattering. <i>Nano Energy</i> , 2021, 83, 105818.	8.2	11
5	Calculation aided miscibility manipulation enables highly efficient polythiophene:nonfullerene photovoltaic cells. <i>Science China Chemistry</i> , 2021, 64, 478-487.	4.2	43
6	Tetraethylorthosilicate-containing barrier dispersion coatingsâ€™ Mechanism of action. <i>Progress in Organic Coatings</i> , 2020, 139, 105443.	1.9	2
7	Direct Arylation Polycondensation of Chlorinated Thiophene Derivatives to High-Mobility Conjugated Polymers. <i>Macromolecules</i> , 2020, 53, 10147-10154.	2.2	27
8	<p>Bovine Meniscus Middle Zone Tissue: Measurement of Collagen Fibril Behavior During Compression</p>. <i>International Journal of Nanomedicine</i> , 2020, Volume 15, 5289-5298.	3.3	6
9	Annealing of ion tracks in apatite under pressure characterized in situ by small angle x-ray scattering. <i>Scientific Reports</i> , 2020, 10, 1367.	1.6	2
10	Measured collagen fibril response to arterial inflation using SAXS. <i>International Journal of Biological Macromolecules</i> , 2019, 137, 1020-1029.	3.6	3
11	Analysis of age hardening precipitates of Al-Zn-Mg-Cu alloys in a wide range of quenching rates using small angle X-ray scattering. <i>Materials and Design</i> , 2018, 142, 259-267.	3.3	57
12	An optimized SEC-SAXS system enabling high X-ray dose for rapid SAXS assessment with correlated UV measurements for biomolecular structure analysis. <i>Journal of Applied Crystallography</i> , 2018, 51, 97-111.	1.9	61
13	Acellular dermal matrix collagen responds to strain by intermolecular spacing contraction with fibril extension and rearrangement. <i>Journal of the Mechanical Behavior of Biomedical Materials</i> , 2018, 79, 1-8.	1.5	12
14	Artificially modified collagen fibril orientation affects leather tear strength. <i>Journal of the Science of Food and Agriculture</i> , 2018, 98, 3524-3531.	1.7	6
15	Nanostructure of electrospun collagen: Do electrospun collagen fibers form native structures?. <i>Materialia</i> , 2018, 3, 90-96.	1.3	67
16	Surface Layer Formation in the Earliest Stages of Corrosion of Steel in CO ₂ -Saturated Brine at 80Â°C: Studied by In Situ Synchrotron X-ray Methods. <i>Journal of the Electrochemical Society</i> , 2018, 165, C842-C847.	1.3	2
17	Elemental fingerprinting of mineral species in iron-fortified milk: anomalous small-angle X-ray scattering and resonant soft X-ray scattering studies. <i>Journal of Synchrotron Radiation</i> , 2018, 25, 1106-1112.	1.0	10
18	Crystallization of Femtoliter Surface Droplet Arrays Revealed by Synchrotron Small-Angle X-ray Scattering. <i>Langmuir</i> , 2018, 34, 9470-9476.	1.6	8

#	ARTICLE	IF	CITATIONS
19	Exploiting topology-directed nanoparticle disassembly for triggered drug delivery. <i>Biomaterials</i> , 2018, 180, 184-192.	5.7	15
20	Tropical Keratopathy (Florida Spots) in Cats. <i>Veterinary Pathology</i> , 2018, 55, 861-870.	0.8	7
21	Cationic polyacrylamide induced nanoparticles assembly in a cellulose nanofiber network. <i>Journal of Colloid and Interface Science</i> , 2018, 529, 180-186.	5.0	14
22	Deer leather: analysis of the microstructure affecting pebble. <i>Journal of the Science of Food and Agriculture</i> , 2017, 97, 3509-3514.	1.7	2
23	Measuring temperature effects on nano-bubble growth in tungsten with grazing incidence small angle X-ray scattering. <i>Nuclear Materials and Energy</i> , 2017, 12, 1294-1297.	0.6	7
24	Towards advanced paramagnetic nanoassemblies of highly ordered interior nanostructures as potential MRI contrast agents. <i>New Journal of Chemistry</i> , 2017, 41, 2735-2744.	1.4	4
25	Collagen Fibril Intermolecular Spacing Changes with 2-Propanol: A Mechanism for Tissue Stiffness. <i>ACS Biomaterials Science and Engineering</i> , 2017, 3, 2524-2532.	2.6	12
26	Collagen Fibril Response to Strain in Scaffolds from Ovine Forestomach for Tissue Engineering. <i>ACS Biomaterials Science and Engineering</i> , 2017, 3, 2550-2558.	2.6	14
27	A small angle X-ray scattering study of the structure and development of looseness in bovine hides and leather. <i>Journal of the Science of Food and Agriculture</i> , 2017, 97, 1543-1551.	1.7	6
28	X-ray crystal structure of plasmin with tranexamic acid-derived active site inhibitors. <i>Blood Advances</i> , 2017, 1, 766-771.	2.5	25
29	2017 publication guidelines for structural modelling of small-angle scattering data from biomolecules in solution: an update. <i>Acta Crystallographica Section D: Structural Biology</i> , 2017, 73, 710-728.	1.1	205
30	Improved radiation dose efficiency in solution SAXS using a sheath flow sample environment. <i>Acta Crystallographica Section D: Structural Biology</i> , 2016, 72, 1254-1266.	1.1	135
31	Use of complementary nucleobase-containing synthetic polymers to prepare complex self-assembled morphologies in water. <i>Polymer Chemistry</i> , 2016, 7, 2836-2846.	1.9	29
32	Dimerization of Bacterial Diaminopimelate Decarboxylase Is Essential for Catalysis. <i>Journal of Biological Chemistry</i> , 2016, 291, 9785-9795.	1.6	31
33	Apolipoprotein C-II Adopts Distinct Structures in Complex with Micellar and Submicellar Forms of the Amyloid-Inhibiting Lipid-Mimetic Dodecylphosphocholine. <i>Biophysical Journal</i> , 2016, 110, 85-94.	0.2	4
34	Combined pressure and temperature denaturation of ribonuclease A produces alternate denatured states. <i>Biochemical and Biophysical Research Communications</i> , 2016, 473, 834-839.	1.0	3
35	CO ₂ /pH-responsive particles with built-in fluorescence read-out. <i>Polymer Chemistry</i> , 2016, 7, 5943-5948.	1.9	24
36	GISAXS modelling of helium-induced nano-bubble formation in tungsten and comparison with TEM. <i>Journal of Nuclear Materials</i> , 2016, 473, 6-12.	1.3	23

#	ARTICLE	IF	CITATIONS
37	Micellar nanoparticles with tuneable morphologies through interactions between nucleobase-containing synthetic polymers in aqueous solution. <i>Polymer Chemistry</i> , 2016, 7, 4254-4262.	1.9	35
38	Exploring the <i>in meso</i> crystallization mechanism by characterizing the lipid mesophase microenvironment during the growth of single transmembrane α -helical peptide crystals. <i>Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences</i> , 2016, 374, 20150125.	1.6	14
39	A Barley Efflux Transporter Operates in a Na ⁺ -Dependent Manner, as Revealed by a Multidisciplinary Platform. <i>Plant Cell</i> , 2016, 28, 202-218.	3.1	29
40	Cyclic Graft Copolymer Unimolecular Micelles: Effects of Cyclization on Particle Morphology and Thermoresponsive Behavior. <i>Macromolecules</i> , 2016, 49, 2802-2813.	2.2	60
41	Age Differences with Glutaraldehyde Treatment in Collagen Fibril Orientation of Bovine Pericardium. <i>Journal of Biomaterials and Tissue Engineering</i> , 2016, 6, 992-997.	0.0	4
42	Gd-DTPA-Bisphityl Amphiphile: Synthesis, Characterisation and Relaxation Parameters of the Nanoassemblies and Their Potential as MRI Contrast Agents. <i>Chemistry - A European Journal</i> , 2015, 21, 13950-13960.	1.7	12
43	Biomimetic mineralization of metal-organic frameworks as protective coatings for biomacromolecules. <i>Nature Communications</i> , 2015, 6, 7240.	5.8	1,077
44	Collagen Fibril Structure and Strength in Acellular Dermal Matrix Materials of Bovine, Porcine, and Human Origin. <i>ACS Biomaterials Science and Engineering</i> , 2015, 1, 1026-1038.	2.6	38
45	Collagen fibril strain, recruitment and orientation for pericardium under tension and the effect of cross links. <i>RSC Advances</i> , 2015, 5, 103703-103712.	1.7	20
46	Nanocompartmentalization of Soft Materials with Three Mutually Immiscible Solvents: Synthesis and Self-Assembly of Three-Arm Star-Polyphiles. <i>Chemistry of Materials</i> , 2015, 27, 857-866.	3.2	8
47	Evaluation of Gd-DTPA-Monophityl and Phytantriol Nanoassemblies as Potential MRI Contrast Agents. <i>Langmuir</i> , 2015, 31, 1556-1563.	1.6	16
48	Changes to Collagen Structure during Leather Processing. <i>Journal of Agricultural and Food Chemistry</i> , 2015, 63, 2499-2505.	2.4	41
49	Stabilization of Nontoxic A β -Oligomers: Insights into the Mechanism of Action of Hydroxyquinolines in Alzheimer's Disease. <i>Journal of Neuroscience</i> , 2015, 35, 2871-2884.	1.7	67
50	Arene ruthenium dithiolato-carborane complexes for boron neutron capture therapy (BNCT). <i>Journal of Organometallic Chemistry</i> , 2015, 796, 17-25.	0.8	27
51	Complementary light scattering and synchrotron small-angle X-ray scattering studies of the micelle-to-unimer transition of polysulfobetaines. <i>Soft Matter</i> , 2015, 11, 3666-3676.	1.2	25
52	Differential ultracentrifugation coupled to small-angle X-ray scattering on macromolecular complexes. <i>Journal of Applied Crystallography</i> , 2015, 48, 769-775.	1.9	6
53	Nanostructure and cytotoxicity of self-assembled monoolein-capric acid lyotropic liquid crystalline nanoparticles. <i>RSC Advances</i> , 2015, 5, 26785-26795.	1.7	91
54	Small angle X-ray scattering analysis of Cu ²⁺ -induced oligomers of the Alzheimer's amyloid β peptide. <i>Metallomics</i> , 2015, 7, 536-543.	1.0	25

#	ARTICLE	IF	CITATIONS
55	First stages of siderite crystallisation during CO ₂ corrosion of steel evaluated using in situ synchrotron small- and wide-angle X-ray scattering. <i>Faraday Discussions</i> , 2015, 180, 171-190.	1.6	42
56	Poisson's ratio of collagen fibrils measured by small angle X-ray scattering of strained bovine pericardium. <i>Journal of Applied Physics</i> , 2015, 117, .	1.1	30
57	The Copolymer Blending Method: A New Approach for Targeted Assembly of Micellar Nanoparticles. <i>Macromolecules</i> , 2015, 48, 6516-6522.	2.2	40
58	Epidermal growth factor receptor-targeted lipid nanoparticles retain self-assembled nanostructures and provide high specificity. <i>Nanoscale</i> , 2015, 7, 2905-2913.	2.8	69
59	Collagen cross linking and fibril alignment in pericardium. <i>RSC Advances</i> , 2015, 5, 3611-3618.	1.7	22
60	Protic ionic liquids (PILs) nanostructure and physicochemical properties: development of high-throughput methodology for PIL creation and property screens. <i>Physical Chemistry Chemical Physics</i> , 2015, 17, 2357-2365.	1.3	57
61	Exploiting nucleobase-containing materials “ from monomers to complex morphologies using RAFT dispersion polymerization. <i>Polymer Chemistry</i> , 2015, 6, 106-117.	1.9	79
62	Alpha-synuclein oligomers and fibrils originate in two distinct conformer pools: a small angle X-ray scattering and ensemble optimisation modelling study. <i>Molecular BioSystems</i> , 2015, 11, 190-196.	2.9	24
63	Understanding the photothermal heating effect in non-lamellar liquid crystalline systems, and the design of new mixed lipid systems for photothermal on-demand drug delivery. <i>Physical Chemistry Chemical Physics</i> , 2014, 16, 24936-24953.	1.3	28
64	Structural reorganization of cylindrical nanoparticles triggered by polylactide stereocomplexation. <i>Nature Communications</i> , 2014, 5, 5746.	5.8	125
65	Age Dependent Differences in Collagen Alignment of Glutaraldehyde Fixed Bovine Pericardium. <i>BioMed Research International</i> , 2014, 2014, 1-10.	0.9	22
66	Characterisation of embedded nano-precipitates by X-ray diffraction imaging and small-angle X-ray scattering. <i>International Journal of Nanotechnology</i> , 2014, 11, 549.	0.1	0
67	Effects of Liquid CO ₂ Exposure on Semi-Crystalline Polylactic Acid. <i>Macromolecular Symposia</i> , 2014, 336, 53-60.	0.4	8
68	Guanidine hydrochloride denaturation of dopamine-induced β -synuclein oligomers: A small-angle X-ray scattering study. <i>Proteins: Structure, Function and Bioinformatics</i> , 2014, 82, 10-21.	1.5	9
69	Construction of DNA-polymer hybrids using intercalation interactions. <i>Chemical Communications</i> , 2014, 50, 1338-1340.	2.2	14
70	Fabrication of crystals from single metal atoms. <i>Nature Communications</i> , 2014, 5, 3851.	5.8	31
71	Particle evolution in Mg-Zr alloy processed by integrated extrusion and equal channel angular pressing: Evaluation by electron microscopy and synchrotron small-angle X-ray scattering. <i>Acta Materialia</i> , 2014, 72, 110-124.	3.8	32
72	Lyotropic liquid crystal phases of phytantriol in a protic ionic liquid with fluorosulfonate anion. <i>Physical Chemistry Chemical Physics</i> , 2014, 16, 21321-21329.	1.3	8

#	ARTICLE	IF	CITATIONS
73	Expanding the scope of the crystallization-driven self-assembly of polylactide-containing polymers. <i>Polymer Chemistry</i> , 2014, 5, 1427-1436.	1.9	68
74	Nanoassemblies of Gd ³⁺ -DTPA ⁴⁻ -monooleyl and glycerol monooleate amphiphiles as potential MRI contrast agents. <i>Journal of Materials Chemistry B</i> , 2014, 2, 1225.	2.9	25
75	Time-resolved studies of dynamic biomolecules using small angle X-ray scattering. <i>Current Opinion in Structural Biology</i> , 2014, 28, 41-46.	2.6	24
76	Precious metal carborane polymer nanoparticles: characterisation of micellar formulations and anticancer activity. <i>Faraday Discussions</i> , 2014, 175, 229-240.	1.6	33
77	Dual effect of thiol addition on fluorescent polymeric micelles: ON-to-OFF emissive switch and morphology transition. <i>Chemical Communications</i> , 2014, 50, 11492-11495.	2.2	26
78	Measuring the Molecular Dimensions of Wine Tannins: Comparison of Small-Angle X-ray Scattering, Gel-Permeation Chromatography and Mean Degree of Polymerization. <i>Journal of Agricultural and Food Chemistry</i> , 2014, 62, 7216-7224.	2.4	5
79	pH-Responsive Micelles Based on Caprylic Acid. <i>Langmuir</i> , 2014, 30, 7296-7303.	1.6	38
80	Collagen Orientation and Leather Strength for Selected Mammals. <i>Journal of Agricultural and Food Chemistry</i> , 2013, 61, 887-892.	2.4	45
81	Small angle X-ray scattering study of carbon nanotube forests densified into long range patterns by controlled solvent evaporation. <i>Journal of Colloid and Interface Science</i> , 2013, 407, 556-560.	5.0	12
82	Mesoporous Europo-Gadoliniosilicate Nanoparticles as Bimodal Medical Imaging Agents and a Potential Theranostic Platform. <i>Advanced Healthcare Materials</i> , 2013, 2, 836-845.	3.9	15
83	Novel Spiropyran Amphiphiles and Their Application as Light-Responsive Liquid Crystalline Components. <i>Journal of Physical Chemistry B</i> , 2013, 117, 10203-10210.	1.2	38
84	Collagen Fibril Diameter and Leather Strength. <i>Journal of Agricultural and Food Chemistry</i> , 2013, 61, 11524-11531.	2.4	41
85	Mesoporous gadolinium-aluminosilicate nanoparticles as magnetic resonance imaging contrast agents. <i>Journal of Materials Chemistry B</i> , 2013, 1, 1219.	2.9	7
86	Polythiophene- <i>perylene</i> diimide heterojunction field-effect transistors. <i>Journal of Materials Chemistry C</i> , 2013, 1, 2433.	2.7	34
87	Characterization of carbon nanotube webs and yarns with small angle X-ray scattering: Revealing the yarn twist and inter-nanotube interactions and alignment. <i>Carbon</i> , 2013, 63, 562-566.	5.4	31
88	Pretreatment Control of Carbon Nanotube Array Growth for Gas Separation: Alignment and Growth Studied Using Microscopy and Small-Angle X-ray Scattering. <i>ACS Applied Materials & Interfaces</i> , 2013, 5, 3063-3070.	4.0	17
89	Collagen Fibril Orientation and Tear Strength across Ovine Skins. <i>Journal of Agricultural and Food Chemistry</i> , 2013, 61, 12327-12332.	2.4	14
90	Tuning the Size of Cylindrical Micelles from Poly(<i>l</i> -lactide)- <i>b</i> -poly(acrylic acid) Diblock Copolymers Based on Crystallization-Driven Self-Assembly. <i>Macromolecules</i> , 2013, 46, 9074-9082.	2.2	113

#	ARTICLE	IF	CITATIONS
91	<i>In situ</i> SAXS studies of the formation of sodium jarosite. <i>Journal of Synchrotron Radiation</i> , 2013, 20, 626-634.	1.0	6
92	A low-background-intensity focusing small-angle X-ray scattering undulator beamline. <i>Journal of Applied Crystallography</i> , 2013, 46, 1670-1680.	1.9	450
93	Ammonium hydroxide treatment of Al ²⁺ produces an aggregate free solution suitable for biophysical and cell culture characterization. <i>PeerJ</i> , 2013, 1, e73.	0.9	93
94	High-Throughput Preparation of Hexagonally Ordered Mesoporous Silica and Gadolinium Nanoparticles for use as MRI Contrast Agents. <i>ACS Combinatorial Science</i> , 2012, 14, 443-450.	3.8	11
95	Transfer of lipid between triglyceride dispersions and lyotropic liquid crystal nanostructured particles using time-resolved SAXS. <i>Soft Matter</i> , 2012, 8, 5696.	1.2	12
96	High-throughput analysis of the structural evolution of the monoolein cubic phase in situ under crystallogenesis conditions. <i>Soft Matter</i> , 2012, 8, 2310.	1.2	35
97	Chelating DTPA amphiphiles: ion-tunable self-assembly structures and gadolinium complexes. <i>Physical Chemistry Chemical Physics</i> , 2012, 14, 12854.	1.3	13
98	Liquid crystalline hexa-peri-hexabenzocoronene-diketopyrrolopyrrole organic dyes for photovoltaic applications. <i>Journal of Materials Chemistry</i> , 2012, 22, 21131.	6.7	55
99	Protic ionic liquids with fluorine anions: physicochemical properties and self-assembly nanostructure. <i>Physical Chemistry Chemical Physics</i> , 2012, 14, 7981.	1.3	96
100	Controlling the Nanostructure of Gold Nanorods: Lyotropic Liquid-Crystalline Hybrid Materials Using Near-Infrared Laser Irradiation. <i>Langmuir</i> , 2012, 28, 14450-14460.	1.6	48
101	Dimerization of Plant Defensin NaD1 Enhances Its Antifungal Activity. <i>Journal of Biological Chemistry</i> , 2012, 287, 19961-19972.	1.6	71
102	High-Throughput Production and Structural Characterization of Libraries of Self-Assembly Lipidic Cubic Phase Materials. <i>ACS Combinatorial Science</i> , 2012, 14, 247-252.	3.8	42
103	Metal-free and MRI visible theranostic lyotropic liquid crystal nitroxide-based nanoparticles. <i>Biomaterials</i> , 2012, 33, 2723-2733.	5.7	75
104	Enhanced uptake of an integral membrane protein, the dopamine D2L receptor, by cubic nanostructured lipid nanoparticles doped with Ni(II) chelated EDTA amphiphiles. <i>Soft Matter</i> , 2011, 7, 567-578.	1.2	29
105	Nanostructure changes in protic ionic liquids (PILs) through adding solutes and mixing PILs. <i>Physical Chemistry Chemical Physics</i> , 2011, 13, 13501.	1.3	94
106	Polypeptide Folding-Mediated Tuning of the Optical and Structural Properties of Gold Nanoparticle Assemblies. <i>Nano Letters</i> , 2011, 11, 5564-5573.	4.5	55
107	Nanostructured Protic Ionic Liquids Retain Nanoscale Features in Aqueous Solution While Precursor Brønsted Acids and Bases Exhibit Different Behavior. <i>Journal of Physical Chemistry B</i> , 2011, 115, 2055-2066.	1.2	131
108	Chelating oleyl-EDTA amphiphiles: self-assembly, colloidal particles, complexation with paramagnetic metal ions and promise as magnetic resonance imaging contrast agents. <i>Soft Matter</i> , 2011, 7, 10994.	1.2	31

#	ARTICLE	IF	CITATIONS
109	Magnesium Hydride Formation within Carbon Aerogel. Journal of Physical Chemistry C, 2011, 115, 1757-1766.	1.5	55
110	Quantitative phase imaging with polychromatic x-ray sources. Optics Express, 2011, 19, 8127.	1.7	8
111	Evaluating the link between self-assembled mesophase structure and drug release. International Journal of Pharmaceutics, 2011, 421, 176-182.	2.6	180
112	The Connection between the Presence of Melanoma and Changes in Fibre Diffraction Patterns. Cancers, 2010, 2, 1155-1165.	1.7	7
113	Effect of drying and rewetting of wood on cellulose molecular packing. Holzforschung, 2010, 64, .	0.9	29
114	Leather Structure Determination by Small-Angle X-ray Scattering (SAXS): Cross Sections of Ovine and Bovine Leather. Journal of Agricultural and Food Chemistry, 2010, 58, 5286-5291.	2.4	30
115	Plasmonic Nanorods Provide Reversible Control over Nanostructure of Self-Assembled Drug Delivery Materials. Langmuir, 2010, 26, 6136-6139.	1.6	79
116	Diverse Ordered 3D Nanostructured Amphiphile Self-Assembly Materials Found in Protic Ionic Liquids. Journal of Physical Chemistry Letters, 2010, 1, 2651-2654.	2.1	25
117	Hierarchical surfaces: an in situ investigation into nano and micro scale wettability. Faraday Discussions, 2010, 146, 223.	1.6	20
118	Dietary iron-loaded rat liver haemosiderin and ferritin: <i>in situ</i> measurement of iron core nanoparticle size and cluster structure using anomalous small-angle x-ray scattering. Physics in Medicine and Biology, 2009, 54, 1209-1221.	1.6	8
119	Copper-doped BaZrO ₃ crucibles for YBCO single crystal growth. Journal of the European Ceramic Society, 2007, 27, 2039-2044.	2.8	6
120	Strategies for data collection and calibration with a pinhole-geometry SAXS instrument on a synchrotron beamline. Journal of Synchrotron Radiation, 2006, 13, 440-444.	1.0	73
121	Iron K-edge anomalous small-angle X-ray scattering at 15-ID-D at the Advanced Photon Source. Journal of Applied Crystallography, 2006, 40, s402-s407.	1.9	2
122	Solid-state processing of BaZrO ₃ for crucibles used in the growth of YBCO single crystals. Superconductor Science and Technology, 2005, 18, 648-657.	1.8	10