

# Andrew Nelson

## List of Publications by Year in descending order

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104  
papers

22,246  
citations

136950

32  
h-index

30922

102  
g-index

105  
all docs

105  
docs citations

105  
times ranked

32457  
citing authors

#	ARTICLE	IF	CITATIONS
1	SciPy 1.0: fundamental algorithms for scientific computing in Python. <i>Nature Methods</i> , 2020, 17, 261-272.	19.0	17,539
2	Co-refinement of multiple-contrast neutron/X-ray reflectivity data using MOTOFIT. <i>Journal of Applied Crystallography</i> , 2006, 39, 273-276.	4.5	944
3	emcee v3: A Python ensemble sampling toolkit for affine-invariant MCMC. <i>Journal of Open Source Software</i> , 2019, 4, 1864.	4.6	162
4	The multipurpose time-of-flight neutron reflectometer "Platypus" at Australia's OPAL reactor. <i>Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment</i> , 2011, 632, 112-123.	1.6	147
5	Effect of Functionalized Gold Nanoparticles on Floating Lipid Bilayers. <i>Langmuir</i> , 2013, 29, 6606-6614.	3.5	145
6	A Small-Angle Neutron Scattering Study of Adsorbed Poly(ethylene oxide) on Laponite. <i>Langmuir</i> , 2004, 20, 2298-2304.	3.5	139
7	Elimination of Undesirable Water Layers in Solid-Contact Polymeric Ion-Selective Electrodes. <i>Analytical Chemistry</i> , 2008, 80, 6731-6740.	6.5	134
8	refnx: neutron and X-ray reflectometry analysis in Python. <i>Journal of Applied Crystallography</i> , 2019, 52, 193-200.	4.5	108
9	Evidence of a water layer in solid-contact polymeric ion sensors. <i>Physical Chemistry Chemical Physics</i> , 2008, 10, 73-76.	2.8	106
10	Structure of [C <sub>4</sub> mpyr][NTf <sub>2</sub> ] Room-Temperature Ionic Liquid at Charged Gold Interfaces. <i>Langmuir</i> , 2012, 28, 7374-7381.	3.5	104
11	Dynamic Light Scattering Studies of Poly(ethylene oxide) Adsorbed on Laponite: Å Layer Conformation and Its Effect on Particle Stability. <i>Langmuir</i> , 2004, 20, 10382-10388.	3.5	92
12	Electrical Double-Layer Capacitance in Room Temperature Ionic Liquids: Ion-Size and Specific Adsorption Effects. <i>Journal of Physical Chemistry B</i> , 2010, 114, 11149-11154.	2.6	79
13	Motofit: integrating neutron reflectometry acquisition, reduction and analysis into one, easy to use, package. <i>Journal of Physics: Conference Series</i> , 2010, 251, 012094.	0.4	69
14	Small-Angle Neutron Scattering Study of Adsorbed Pluronic Tri-Block Copolymers on Laponite. <i>Langmuir</i> , 2005, 21, 9176-9182.	3.5	68
15	Solid-State Dendrimer Sensors: Probing the Diffusion of an Explosive Analogue Using Neutron Reflectometry. <i>Langmuir</i> , 2009, 25, 12800-12805.	3.5	68
16	A multilayered approach to polyfluorene water-based organic photovoltaics. <i>Solar Energy Materials and Solar Cells</i> , 2012, 102, 114-124.	6.2	65
17	NMR Solvent Relaxation in Studies of Multicomponent Polymer Adsorption. <i>Langmuir</i> , 2002, 18, 2750-2755.	3.5	63
18	Structure of the Ethylammonium Nitrate Surface: An X-ray Reflectivity and Vibrational Sum Frequency Spectroscopy Study. <i>Langmuir</i> , 2010, 26, 8282-8288.	3.5	62

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19	Platypus: a time-of-flight neutron reflectometer at Australia's new research reactor. <i>Journal of Neutron Research</i> , 2006, 14, 91-108.	1.1	56
20	Specific Anion Effects on the Internal Structure of a Poly( <i>N</i> -isopropylacrylamide) Brush. <i>Macromolecules</i> , 2016, 49, 6050-6060.	4.8	51
21	Molecularly Engineered Intrinsically Healable and Stretchable Conducting Polymers. <i>Chemistry of Materials</i> , 2017, 29, 8850-8858.	6.7	49
22	X-Ray reflectometry studies on the effect of water on the surface structure of [C4mpyr][NTf2] ionic liquid. <i>Physical Chemistry Chemical Physics</i> , 2009, 11, 11507.	2.8	41
23	Probing the protic ionic liquid surface using X-ray reflectivity. <i>Physical Chemistry Chemical Physics</i> , 2011, 13, 20828.	2.8	41
24	Invited Article: Polarization "Down Under" The polarized time-of-flight neutron reflectometer PLATYPUS. <i>Review of Scientific Instruments</i> , 2012, 83, 081301.	1.3	41
25	Direct Measurement of van der Waals and Diffuse Double-Layer Forces between Titanium Dioxide Surfaces Produced by Atomic Layer Deposition. <i>Journal of Physical Chemistry C</i> , 2012, 116, 7838-7847.	3.1	39
26	Influence of Anion Hydrophilicity on the Conformation of a Hydrophobic Weak Polyelectrolyte Brush. <i>Macromolecules</i> , 2016, 49, 9605-9617.	4.8	39
27	Dependence of Organic Interlayer Diffusion on Glass-Transition Temperature in OLEDs. <i>ACS Applied Materials &amp; Interfaces</i> , 2017, 9, 14153-14161.	8.0	38
28	The interaction of cubosomes with supported phospholipid bilayers using neutron reflectometry and QCM-D. <i>Soft Matter</i> , 2011, 7, 8041.	2.7	35
29	Diffusion "the Hidden Menace in Organic Optoelectronic Devices. <i>Advanced Materials</i> , 2012, 24, 822-826.	21.0	35
30	X-Ray and Neutron Reflectometry Study of Glow-Discharge Plasma Polymer Films. <i>Langmuir</i> , 2006, 22, 453-458.	3.5	34
31	Correlation of diffusion and performance in sequentially processed P3HT/PCBM heterojunction films by time-resolved neutron reflectometry. <i>Journal of Materials Chemistry C</i> , 2013, 1, 2593.	5.5	33
32	Enhanced specific ion effects in ethylene glycol-based thermoresponsive polymer brushes. <i>Journal of Colloid and Interface Science</i> , 2017, 490, 869-878.	9.4	31
33	Surface structure of a "non-amphiphilic" protic ionic liquid. <i>Physical Chemistry Chemical Physics</i> , 2012, 14, 5106.	2.8	29
34	Electrochemical cell for neutron reflectometry studies of the structure of ionic liquids at electrified interface. <i>Review of Scientific Instruments</i> , 2010, 81, 074101.	1.3	23
35	The role of copolymer composition on the specific ion and thermo-response of ethylene glycol-based brushes. <i>Polymer</i> , 2018, 138, 229-241.	3.8	22
36	Influence of molecular weight on PNIPAM brush modified colloidal silica particles. <i>Soft Matter</i> , 2019, 15, 55-64.	2.7	22

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37	The structural impact of water sorption on device-quality melanin thin films. <i>Soft Matter</i> , 2017, 13, 3954-3965.	2.7	21
38	Precise Analyses of Short-Time Relaxation at Asymmetric Polystyrene Interface in Terms of Molecular Weight by Time-Resolved Neutron Reflectivity Measurements. <i>Macromolecules</i> , 2011, 44, 9424-9433.	4.8	20
39	An X-ray and neutron reflectometry study of $\alpha$ -PEG-like <sup>TM</sup> plasma polymer films. <i>Journal of the Royal Society Interface</i> , 2012, 9, 1008-1019.	3.4	20
40	Improved stability of non-ITO stacked electrodes for large area flexible organic solar cells. <i>Solar Energy Materials and Solar Cells</i> , 2014, 130, 182-190.	6.2	20
41	Surface Chemistry and Rheology of Polysulfobetaine-Coated Silica. <i>Langmuir</i> , 2007, 23, 7587-7593.	3.5	19
42	The effects of acid hydrolysis on protein biosurfactant molecular, interfacial, and foam properties: pH responsive protein hydrolysates. <i>Soft Matter</i> , 2012, 8, 5131.	2.7	19
43	Determination of Fullerene Scattering Length Density: A Critical Parameter for Understanding the Fullerene Distribution in Bulk Heterojunction Organic Photovoltaic Devices. <i>Langmuir</i> , 2014, 30, 1410-1415.	3.5	19
44	Self-healing polythiophene phenylenes for stretchable electronics. <i>European Polymer Journal</i> , 2018, 105, 331-338.	5.4	18
45	A Comparative X-Ray and Neutron Reflectometry Study of Plasma Polymer Films Containing Reactive Amines. <i>Plasma Processes and Polymers</i> , 2007, 4, 433-444.	3.0	17
46	Insights into the role of protein molecule size and structure on interfacial properties using designed sequences. <i>Journal of the Royal Society Interface</i> , 2013, 10, 20120987.	3.4	17
47	Diffusion at Interfaces in OLEDs Containing a Doped Phosphorescent Emissive Layer. <i>Advanced Materials Interfaces</i> , 2016, 3, 1600184.	3.7	17
48	Temperature dependent specific ion effects in mixed salt environments on a thermoresponsive poly(oligoethylene glycol methacrylate) brush. <i>Physical Chemistry Chemical Physics</i> , 2019, 21, 4650-4662.	2.8	17
49	Quantifying the robustness of the neutron reflectometry technique for structural characterization of polymer brushes. <i>Journal of Applied Crystallography</i> , 2021, 54, 739-750.	4.5	17
50	Ionic Liquid Adsorption at the Silica <sup>TM</sup> Oil Interface Revealed by Neutron Reflectometry. <i>Journal of Physical Chemistry C</i> , 2018, 122, 24077-24084.	3.1	16
51	Effects of the Density of Chemical Cross-links and Physical Entanglements of Ultraviolet-Irradiated Polystyrene Chains on Domain Orientation and Spatial Order of Polystyrene-block-Poly(methyl) Tj ETQq1 1 0.7843 145rgBT /Overlock 10	1.8	16
52	Competitive specific ion effects in mixed salt solutions on a thermoresponsive polymer brush. <i>Journal of Colloid and Interface Science</i> , 2021, 586, 292-304.	9.4	16
53	Ultra-thin films based on random copolymers containing perfluoropolyether side chains. <i>Thin Solid Films</i> , 2012, 520, 5627-5632.	1.8	15
54	Oxidative Damage to Biomimetic Membrane Systems: In Situ Fe(II)/Ascorbate Initiated Oxidation and Incorporation of Synthetic Oxidized Phospholipids. <i>Langmuir</i> , 2015, 31, 12679-12687.	3.5	15

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55	Biom mineralization of Calcium Phosphate and Calcium Carbonate within Iridescent Chitosan/Iota-Carrageenan Multilayered Films. <i>Langmuir</i> , 2018, 34, 8994-9003.	3.5	15
56	Human serum albumin binding to silica nanoparticles – effect of protein fatty acid ligand. <i>Physical Chemistry Chemical Physics</i> , 2014, 16, 10157-10168.	2.8	14
57	The Antifungal Mechanism of Amphotericin B Elucidated in Ergosterol and Cholesterol-Containing Membranes Using Neutron Reflectometry. <i>Nanomaterials</i> , 2020, 10, 2439.	4.1	14
58	In-situ neutron reflectometry probing competitive swelling and de-swelling of thin polystyrene films. <i>Physica Status Solidi - Rapid Research Letters</i> , 2007, 1, R68-R70.	2.4	13
59	The application of neutron reflectometry and atomic force microscopy in the study of corrosion inhibitor films. <i>Physica B: Condensed Matter</i> , 2006, 385-386, 924-926.	2.7	12
60	Model Surfaces Produced by Atomic Layer Deposition. <i>Chemistry Letters</i> , 2012, 41, 1247-1249.	1.3	12
61	Chain Collapse and Interfacial Slip of Polystyrene Films in Good/Nonsolvent Vapor Mixtures. <i>Macromolecules</i> , 2016, 49, 1344-1352.	4.8	12
62	Using Neutron Reflectometry to Characterize Antimicrobial Protein Surface Coatings. <i>Journal of Physical Chemistry B</i> , 2017, 121, 5908-5916.	2.6	12
63	Structure and Hydration of Asymmetric Polyelectrolyte Multilayers as Studied by Neutron Reflectometry: Connecting Multilayer Structure to Superior Membrane Performance. <i>Macromolecules</i> , 2020, 53, 10644-10654.	4.8	12
64	Influence of the surface roughness on the properties of Au films measured by surface plasmon resonance and X-ray reflectometry. <i>Thin Solid Films</i> , 2011, 519, 2093-2097.	1.8	11
65	Calcium mediated interaction of calf-thymus DNA with monolayers of distearoylphosphatidylcholine: a neutron and X-ray reflectivity study. <i>Soft Matter</i> , 2013, 9, 7095.	2.7	11
66	Formation of hydrated layers in PMMA thin films in aqueous solution. <i>Applied Surface Science</i> , 2015, 353, 829-834.	6.1	11
67	The direction of influence of specific ion effects on a pH and temperature responsive copolymer brush is dependent on polymer charge. <i>Polymer</i> , 2021, 214, 123287.	3.8	11
68	Structure of mixed DTAB/DDAB adsorbed layers on quartz. <i>Colloids and Surfaces A: Physicochemical and Engineering Aspects</i> , 2007, 310, 1-8.	4.7	10
69	Comparing Surfactant Structures at “Soft” and “Hard” Hydrophobic Materials: Not All Interfaces Are Equivalent. <i>Langmuir</i> , 2018, 34, 9141-9152.	3.5	10
70	Geometrical Confinement Modulates the Thermoresponse of a Poly( <i>N</i> -isopropylacrylamide) Brush. <i>Macromolecules</i> , 2021, 54, 2541-2550.	4.8	10
71	A new neutron reflectometer at Australia’s HIFAR research reactor. <i>Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment</i> , 2005, 536, 165-175.	1.6	9
72	Molecular Orientation of Tropoelastin is Determined by Surface Hydrophobicity. <i>Biomacromolecules</i> , 2012, 13, 379-386.	5.4	9

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73	Morphological, chemical and kinetic characterisation of zein protein-induced biomimetic calcium phosphate films. <i>Journal of Materials Chemistry B</i> , 2015, 3, 6213-6223.	5.8	9
74	Phase Separation in the Organic Solid State: The Influence of Quenching Protocol in Unstable <i>n</i> -Alkane Blends. <i>Molecular Crystals and Liquid Crystals</i> , 2005, 440, 93-105.	0.9	8
75	A neutron reflectivity study of the interfacial and thermal behaviour of surface-attached hairpin DNA. <i>Soft Matter</i> , 2011, 7, 5020.	2.7	8
76	Ultralow surface energy self-assembled monolayers of iodo-perfluorinated alkanes on silica driven by halogen bonding. <i>Nanoscale</i> , 2019, 11, 2401-2411.	5.6	8
77	Comparisons of alumina barrier films deposited by thermal and plasma atomic layer deposition. <i>Materials Today Chemistry</i> , 2019, 11, 8-15.	3.5	8
78	Enrichment of Charged Monomers Explains Non-monotonic Polymer Volume Fraction Profiles of Multi-stimulus Responsive Copolymer Brushes. <i>Langmuir</i> , 2020, 36, 12460-12472.	3.5	8
79	Towards a detailed resolution smearing kernel for time-of-flight neutron reflectometers. <i>Journal of Applied Crystallography</i> , 2013, 46, 1338-1346.	4.5	7
80	Towards a detailed resolution smearing kernel for time-of-flight neutron reflectometers. Corrigendum. <i>Journal of Applied Crystallography</i> , 2014, 47, 1162-1162.	4.5	7
81	Morphology of OLED Film Stacks Containing Solution-Processed Phosphorescent Dendrimers. <i>ACS Applied Materials &amp; Interfaces</i> , 2018, 10, 3848-3855.	8.0	7
82	Influence of Dopant Concentration and Steric Bulk on Interlayer Diffusion in OLEDs. <i>Advanced Materials Interfaces</i> , 2018, 5, 1700872.	3.7	7
83	Long side-chain grafting imparts intrinsic adhesiveness to poly(thiophene phenylene) conjugated polymer. <i>European Polymer Journal</i> , 2018, 109, 237-247.	5.4	7
84	Insect odorant receptor nanodiscs for sensitive and specific electrochemical detection of odorant compounds. <i>Sensors and Actuators B: Chemical</i> , 2021, 329, 129243.	7.8	7
85	Light-Gated Control of Conformational Changes in Polymer Brushes. <i>Advanced Materials Technologies</i> , 2022, 7, 2100347.	5.8	6
86	Surface engineering of poly(methylmethacrylate): Effects on fluorescence immunoassay. <i>Biointerphases</i> , 2017, 12, 02C415.	1.6	5
87	Time Resolved Polarised Grazing Incidence Neutron Scattering from Composite Materials. <i>Polymers</i> , 2019, 11, 445.	4.5	5
88	Dispersity effects on phase behavior and structural evolution in ultrathin films of a deuterated polystyrene-block-poly(methyl methacrylate) diblock copolymer. <i>Polymer</i> , 2020, 210, 123027.	3.8	5
89	Nanostructural Characterization of Cardiolipin-Containing Tethered Lipid Bilayers Adsorbed on Gold and Silicon Substrates for Protein Incorporation. <i>Langmuir</i> , 2021, 37, 8908-8923.	3.5	5
90	Distributions of Deuterated Polystyrene Chains in Perforated Layers of Blend Films of a Symmetric Polystyrene-block-poly(methyl methacrylate). <i>Langmuir</i> , 2021, 37, 13046-13058.	3.5	5

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91	In situ study of the impact of acidic and neutral deposition pH on alkane phosphate film formation and stability on TiO <sub>2</sub> . RSC Advances, 2013, 3, 2581.	3.6	4
92	Chain shape and thin film behaviour of poly(thiophene)- <i>graft</i> -poly(acrylate urethane). Soft Matter, 2018, 14, 6875-6882.	2.7	4
93	Chain Length Effects of Added Homopolymers on the Phase Behavior in Blend Films of a Symmetric, Weakly Segregated Polystyrene- <i>block</i> -poly(methyl methacrylate). Macromolecules, 2022, 55, 2130-2147.	4.8	4
94	Using refnx to Model Neutron Reflectometry Data from Phospholipid Bilayers. Methods in Molecular Biology, 2022, 2402, 179-197.	0.9	3
95	Platypus: Even Though I'm Cute, I'm a Complex Beast. Neutron News, 2009, 20, 21-23.	0.2	2
96	Is ballistic transportation or quantum confinement responsible for changes in the electrical properties of thin polymer films?. Physical Chemistry Chemical Physics, 2013, 15, 1364-1368.	2.8	2
97	Invited Paper : Probing the Thermal Stability of OLEDs with Neutrons. Digest of Technical Papers SID International Symposium, 2017, 48, 1129-1133.	0.3	2
98	Three impossible things before lunch – the task of a sample environment specialist. Journal of Neutron Research, 2017, 19, 49-56.	1.1	2
99	Diffusion in Organic Film Stacks Containing Solution-Processed Phosphorescent Poly(dendrimer) Dopants. ACS Applied Materials & Interfaces, 2021, 13, 30910-30920.	8.0	2
100	Near Surface Crystallization of Pluronic P123. Journal of Physics: Conference Series, 2012, 340, 012088.	0.4	1
101	Counting crystal clusters – a neutron reflectometry study of calcium phosphate nano-cluster adsorption at the air-liquid Interface. CrystEngComm, 2017, 19, 5716-5720.	2.6	1
102	Probing the Interfacial Structure of Bilayer Plasma Polymer Films via Neutron Reflectometry. Plasma Processes and Polymers, 2016, 13, 534-543.	3.0	0
103	In-situ ellipsometric study of calcium phosphate biomineralisation on organic thin films. International Journal of Nanotechnology, 2017, 14, 375.	0.2	0
104	Power losses in conventional and inverted non-polymeric donor:fullerene bulk heterojunction solar cells - The role of vertical phase separation in BQR:PC71BM blends. Organic Electronics, 2022, 108, 106594.	2.6	0