

# Erik B Watkins

## List of Publications by Year in descending order

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Version: 2024-02-01

72  
papers

1,758  
citations

279487

23  
h-index

288905

40  
g-index

76  
all docs

76  
docs citations

76  
times ranked

2767  
citing authors

#	ARTICLE	IF	CITATIONS
1	Probing oil recovery in shale nanopores with small-angle and ultra-small-angle neutron scattering. International Journal of Coal Geology, 2022, 253, 103950.	1.9	5
2	Time-resolved phase and compositional homogenization of segregated uranium-niobium alloys above the monotectoid temperature. Journal of Nuclear Materials, 2022, 564, 153673.	1.3	2
3	Binding of Cholera Toxin B-Subunit to a Ganglioside GM1-Functionalized PEG-Tethered Lipid Membrane. Langmuir, 2022, 38, 6959-6966.	1.6	1
4	Growth and characterization of uranium oxide thin films deposited by polymer assisted deposition. Thin Solid Films, 2021, 735, 138874.	0.8	3
5	In situ x-ray diffraction of high density polyethylene during dynamic drive: Polymer chain compression and decomposition. Journal of Applied Physics, 2021, 130, 175901.	1.1	3
6	Neutron radiography through a SIFaN instrument. , 2021, , .		0
7	Unusually High Concentration of Alkyl Ammonium Hydroxide in the Cationic Hydroxide Water Coadsorbed Layer on Pt. ACS Applied Materials & Interfaces, 2020, 12, 1825-1831.	4.0	15
8	The lattice parameter vs composition relationship of the body centered cubic uranium-niobium alloys. Journal of Nuclear Materials, 2020, 542, 152493.	1.3	8
9	Reduced methane recovery at high pressure due to methane trapping in shale nanopores. Communications Earth & Environment, 2020, 1, .	2.6	26
10	Structural properties, thicknesses, and qualities of plutonium oxide thin films prepared by polymer assisted deposition. Surface Science, 2020, 701, 121696.	0.8	7
11	Small-angle Neutron Scattering (SANS) Characterization of Clay- and Carbonate-rich Shale at Elevated Pressures. Energy & Fuels, 2020, 34, 8178-8185.	2.5	22
12	Oxide structure of air-passivated U-6Nb alloy thin films. Journal of Nuclear Materials, 2020, 539, 152356.	1.3	5
13	Shiga Toxin Induces Lipid Compression: A Mechanism for Generating Membrane Curvature. Nano Letters, 2019, 19, 7365-7369.	4.5	26
14	Fibrillar and Nonfibrillar Amyloid Beta Structures Drive Two Modes of Membrane-Mediated Toxicity. Langmuir, 2019, 35, 16024-16036.	1.6	36
15	Synchrotron X-Ray Scattering Studies to Determine Structure of Amyloid Beta Interactions with Lipid Membranes. Biophysical Journal, 2019, 116, 45a.	0.2	0
16	Effect of electrochemical control function on the internal structure and composition of electrodeposited polypyrrole films: A neutron reflectometry study. Electrochimica Acta, 2019, 295, 978-988.	2.6	9
17	Enhanced Ordering in Monolayers Containing Glycosphingolipids: Impact of Carbohydrate Structure. Biophysical Journal, 2018, 114, 105a-106a.	0.2	0
18	Enhanced Ordering in Monolayers Containing Glycosphingolipids: Impact of Carbohydrate Structure. Biophysical Journal, 2018, 114, 1103-1115.	0.2	7

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19	The Thermal and Microstructural Effect of Plasticizing HMX-Nitrocellulose Composites. <i>Journal of Energetic Materials</i> , 2018, 36, 13-28.	1.0	12
20	Single-bunch imaging of detonation fronts using scattered synchrotron radiation. <i>Journal of Applied Physics</i> , 2018, 123, .	1.1	6
21	Neutron Imaging at LANSCEâ€”From Cold to Ultrafast. <i>Journal of Imaging</i> , 2018, 4, 45.	1.7	31
22	Reaction of amorphous/crystalline SiOC/Fe interfaces by thermal annealing. <i>Acta Materialia</i> , 2017, 135, 61-67.	3.8	12
23	Time resolved small angle X-ray scattering experiments performed on detonating explosives at the advanced photon source: Calculation of the time and distance between the detonation front and the x-ray beam. <i>Journal of Applied Physics</i> , 2017, 121, .	1.1	28
24	Evolution of Carbon Clusters in the Detonation Products of the Triaminotrinitrobenzene (TATB)-Based Explosive PBX 9502. <i>Journal of Physical Chemistry C</i> , 2017, 121, 23129-23140.	1.5	45
25	Functional Characterization of Cell-Free Expressed OprF Porin from <i>Pseudomonas aeruginosa</i> Stably Incorporated in Tethered Lipid Bilayers. <i>Langmuir</i> , 2017, 33, 9988-9996.	1.6	20
26	Structural Variations in Hybrid All-Nanoparticle Gibbsite Nanoplatelet/Cellulose Nanocrystal Multilayered Films. <i>Langmuir</i> , 2017, 33, 7896-7907.	1.6	13
27	Coupling neutron reflectivity with cell-free protein synthesis to probe membrane protein structure in supported bilayers. <i>Scientific Reports</i> , 2017, 7, 3399.	1.6	20
28	Structural evolution of detonation carbon in composition B by X-ray scattering. <i>AIP Conference Proceedings</i> , 2017, , .	0.3	16
29	Protein-Containing Lipid Bilayers Intercalated with Size-Matched Mesoporous Silica Thin Films. <i>Nano Letters</i> , 2017, 17, 476-485.	4.5	22
30	Solvent Extraction: Structure of the Liquidâ€”Liquid Interface Containing a Diamide Ligand. <i>Angewandte Chemie - International Edition</i> , 2016, 55, 9326-9330.	7.2	53
31	Nanostructural determination of a lipid bilayer tethered to a gold substrate. <i>European Physical Journal E</i> , 2016, 39, 123.	0.7	8
32	Neutron study of phospholipids 1-palmitoyl-2-oleoyl-sn-glycero-3-phospho-ethanolamine spray coating on titanium implants. <i>Biointerphases</i> , 2016, 11, 011002.	0.6	2
33	Influence of the Human and Rat Islet Amyloid Polypeptides on Structure of Phospholipid Bilayers: Neutron Reflectometry and Fluorescence Microscopy Studies. <i>Langmuir</i> , 2016, 32, 4382-4391.	1.6	11
34	Neutron reflectometry investigations of interfacial structures of Ti/TiN layers deposited by magnetron sputtering. <i>Thin Solid Films</i> , 2016, 616, 399-407.	0.8	12
35	In situ Rheo-GISANS of triblock copolymers: gelation and shear effects on quasi-crystalline structures at interfaces. <i>RSC Advances</i> , 2015, 5, 104164-104171.	1.7	5
36	Water Signatures and Their Thermal Stability in Bedded Salt for Nuclear Waste Storage: An Incoherent Inelastic Neutron Spectroscopy Study. <i>Environmental Science and Technology Letters</i> , 2015, 2, 308-313.	3.9	3

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37	Effects of Fluid Shear Stress on Polyelectrolyte Multilayers by Neutron Scattering Studies. <i>Langmuir</i> , 2015, 31, 2870-2878.	1.6	8
38	Structure of a liquid/liquid interface during solvent extraction combining X-ray and neutron reflectivity measurements. <i>Physical Chemistry Chemical Physics</i> , 2015, 17, 15093-15097.	1.3	45
39	Analysis of biosurfaces by neutron reflectometry: From simple to complex interfaces. <i>Biointerphases</i> , 2015, 10, 019014.	0.6	32
40	Thickness and refractive index of DPPC and DPPE monolayers by multiple-beam interferometry. <i>Analytical and Bioanalytical Chemistry</i> , 2014, 406, 4725-4733.	1.9	42
41	Structure and Stability of Phospholipid Bilayers Hydrated by a Room-Temperature Ionic Liquid/Water Solution: A Neutron Reflectometry Study. <i>Journal of Physical Chemistry B</i> , 2014, 118, 12192-12206.	1.2	82
42	Equilibrium or Quenched: Fundamental Differences between Lipid Monolayers, Supported Bilayers, and Membranes. <i>ACS Nano</i> , 2014, 8, 3181-3191.	7.3	25
43	Carbohydrate Conformation and Lipid Condensation in Monolayers Containing Glycosphingolipid Gb3: Influence of Acyl Chain Structure. <i>Biophysical Journal</i> , 2014, 107, 1146-1155.	0.2	28
44	Key Factors Regulating the Mass Delivery of Macromolecules to Model Cell Membranes: Gravity and Electrostatics. <i>ACS Macro Letters</i> , 2014, 3, 121-125.	2.3	7
45	Interactions of Small Dendrimers with Sodium Dodecyl Sulfate at the Air/Water Interface. <i>Journal of Physical Chemistry B</i> , 2014, 118, 11835-11848.	1.2	11
46	X-ray and neutron investigation of self-assembled lipid layers on a titanium surface. <i>Biointerphases</i> , 2013, 8, 21.	0.6	17
47	Nanoscale control of interfacial processes for latent fingerprint enhancement. <i>Faraday Discussions</i> , 2013, 164, 391.	1.6	18
48	Structural Characterization of pH Responsive Polymer Cushions for Solid Supported Membranes. <i>Biophysical Journal</i> , 2012, 102, 647a.	0.2	0
49	Physical Properties of Archaeal Tetraether Lipid Membranes As Revealed by Differential Scanning and Pressure Perturbation Calorimetry, Molecular Acoustics, and Neutron Reflectometry: Effects of Pressure and Cell Growth Temperature. <i>Langmuir</i> , 2012, 28, 5211-5217.	1.6	24
50	Biomimetic Membrane System Composed of a Composite Interpenetrating Hydrogel Film and a Lipid Bilayer. <i>Advanced Functional Materials</i> , 2012, 22, 4259-4267.	7.8	7
51	pH Responsive Polymer Cushions for Probing Membrane Environment Interactions. <i>Nano Letters</i> , 2011, 11, 2169-2172.	4.5	38
52	Structure and Thermodynamics of Lipid Bilayers on Polyethylene Glycol Cushions: Fact and Fiction of PEG Cushioned Membranes. <i>Langmuir</i> , 2011, 27, 13618-13628.	1.6	43
53	Membrane texture induced by specific protein binding and receptor clustering: active roles for lipids in cellular function. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2011, 108, 6975-6980.	3.3	69
54	Molecular Scale Texture and Topological Defects in Lipid Membranes: A New Liquid Crystalline Phase. <i>Biophysical Journal</i> , 2010, 98, 488a.	0.2	0

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55	Structure and Orientational Texture of Self-Organizing Lipid Bilayers. <i>Physical Review Letters</i> , 2009, 102, 238101.	2.9	58
56	Time-resolved specular and off-specular neutron reflectivity measurements on deuterated polystyrene and poly(vinyl methyl ether) blend thin films during dewetting process. <i>Journal of Chemical Physics</i> , 2009, 131, 104907.	1.2	15
57	Molecular order in Langmuir-Blodgett assembled films of an azobenzene amphiphile. <i>Thin Solid Films</i> , 2009, 517, 4638-4643.	0.8	3
58	Model Lipid Membranes on a Tunable Polymer Cushion. <i>Physical Review Letters</i> , 2009, 102, 228102.	2.9	47
59	Part I: An X-Ray Scattering Study of Cholera Toxin Penetration and Induced Phase Transformations in Lipid Membranes. <i>Biophysical Journal</i> , 2008, 95, 629-640.	0.2	19
60	Part II: Diffraction from Two-Dimensional Cholera Toxin Crystals Bound to Their Receptors in a Lipid Monolayer. <i>Biophysical Journal</i> , 2008, 95, 641-647.	0.2	12
61	Corrosion inhibition using superhydrophobic films. <i>Corrosion Science</i> , 2008, 50, 897-902.	3.0	159
62	Comparison of critical adsorption scaling functions obtained from neutron reflectometry and ellipsometry. <i>Journal of Chemical Physics</i> , 2007, 126, 204704.	1.2	5
63	Effect of Thickness on the Water-Barrier Properties of Silane Films. <i>Journal of Physical Chemistry C</i> , 2007, 111, 15325-15330.	1.5	11
64	Water-Barrier Properties of Mixed Bis[trimethoxysilylpropyl]amine and Vinyltriacetoxysilane Films. <i>Journal of Physical Chemistry B</i> , 2007, 111, 7041-7051.	1.2	17
65	Templating Polypeptides on Self-Assembled Hemicylindrical Surface Micelles. <i>Journal of Physical Chemistry C</i> , 2007, 111, 9211-9220.	1.5	4
66	Synthesis and Characterization of Monolayers and Langmuir-Blodgett Films of an Amphiphilic Oligo(ethylene glycol)-C60-hexadecaniline Conjugate. <i>Langmuir</i> , 2006, 22, 5366-5373.	1.6	7
67	Carbon Nanotube Supported Single Phospholipid Bilayer. <i>Langmuir</i> , 2006, 22, 10909-10911.	1.6	21
68	Elucidation of PEMFC Electrocatalyst-Layer Surface and Interfacial Phenomena via Neutron Reflectivity. <i>ECS Transactions</i> , 2006, 3, 1011-1021.	0.3	4
69	Reduced water density at hydrophobic surfaces: Effect of dissolved gases. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2005, 102, 9458-9462.	3.3	245
70	Synthesis and Characterization of Amphiphilic Fullerenes and Their Langmuir-Blodgett Films. <i>Langmuir</i> , 2005, 21, 1416-1423.	1.6	31
71	Investigating the Interface of Superhydrophobic Surfaces in Contact with Water. <i>Langmuir</i> , 2005, 21, 7805-7811.	1.6	65
72	Neutron Reflectivity Study of Lipid Membranes Assembled on Ordered Nanocomposite and Nanoporous Silica Thin Films. <i>Langmuir</i> , 2005, 21, 2865-2870.	1.6	45