

Roland Steitz

List of Publications by Year in descending order

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papers

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citations

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all docs

117
docs citations

117
times ranked

4130
citing authors

#	ARTICLE	IF	CITATIONS
1	Nanobubbles and Their Precursor Layer at the Interface of Water Against a Hydrophobic Substrate. <i>Langmuir</i> , 2003, 19, 2409-2418.	1.6	358
2	Interaction of Water with Self-Assembled Monolayers: Neutron Reflectivity Measurements of the Water Density in the Interface Region. <i>Langmuir</i> , 2003, 19, 2284-2293.	1.6	222
3	Influence of the ionic strength on the structure of polyelectrolyte films at the solid/liquid interface. <i>Colloids and Surfaces A: Physicochemical and Engineering Aspects</i> , 2000, 163, 63-70.	2.3	217
4	Influence of Charge Density and Ionic Strength on the Multilayer Formation of Strong Polyelectrolytes. <i>Langmuir</i> , 2001, 17, 4471-4474.	1.6	212
5	Hydration and internal properties of polyelectrolyte multilayers. <i>Colloids and Surfaces A: Physicochemical and Engineering Aspects</i> , 2007, 303, 14-29.	2.3	174
6	Short range interactions in polyelectrolyte multilayers. <i>Current Opinion in Colloid and Interface Science</i> , 2004, 9, 158-162.	3.4	111
7	Volume Expansion during Lithiation of Amorphous Silicon Thin Film Electrodes Studied by In-Operando Neutron Reflectometry. <i>Journal of Physical Chemistry C</i> , 2014, 118, 9395-9399.	1.5	111
8	Density Depletion at Solid-Liquid Interfaces: A Neutron Reflectivity Study. <i>Langmuir</i> , 2007, 23, 598-608.	1.6	107
9	Effect of ionic strength and type of ions on the structure of water swollen polyelectrolyte multilayers. <i>Physical Chemistry Chemical Physics</i> , 2011, 13, 10318.	1.3	94
10	Comparative Adsorption of Saturated and Unsaturated Fatty Acids at the Iron Oxide/Oil Interface. <i>Langmuir</i> , 2016, 32, 534-540.	1.6	79
11	Neutron reflectometry studies on the lithiation of amorphous silicon electrodes in lithium-ion batteries. <i>Physical Chemistry Chemical Physics</i> , 2013, 15, 7777.	1.3	78
12	Lithiation of Crystalline Silicon As Analyzed by Operando Neutron Reflectivity. <i>ACS Nano</i> , 2016, 10, 7458-7466.	7.3	77
13	Temperature-induced changes in polyelectrolyte films at the solid-liquid interface. <i>Applied Physics A: Materials Science and Processing</i> , 2002, 74, s519-s521.	1.1	73
14	Salt-induced protein resistance of polyelectrolyte brushes studied using fluorescence correlation spectroscopy and neutron reflectometry. <i>Physical Chemistry Chemical Physics</i> , 2004, 6, 5557.	1.3	73
15	Equivalent states of amphiphilic lamellae. <i>Langmuir</i> , 1992, 8, 2995-3002.	1.6	72
16	Neutron and x-ray reflectivity studies of self-assembled heterostructures based on conjugated polymers. <i>Journal of Applied Physics</i> , 1998, 83, 725-732.	1.1	70
17	Effect of Temperature on the Adsorption of Lysozyme at the Silica/Water Interface Studied by Optical and Neutron Reflectometry. <i>Langmuir</i> , 2002, 18, 6565-6570.	1.6	65
18	Lithium insertion into silicon electrodes studied by cyclic voltammetry and in-operando neutron reflectometry. <i>Physical Chemistry Chemical Physics</i> , 2018, 20, 23480-23491.	1.3	65

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19	Protein Binding to Like-Charged Polyelectrolyte Brushes by Counterion Evaporation. <i>Journal of Physical Chemistry B</i> , 2004, 108, 13395-13402.	1.2	56
20	The Influence of Secondary Interactions during the Formation of Polyelectrolyte Multilayers: A Layer Thickness, Bound Water and Layer Interpenetration. <i>Journal of Physical Chemistry B</i> , 2007, 111, 8426-8434.	1.2	56
21	Formation of Polyelectrolyte Multilayer Architectures with Embedded DMPC Studied in Situ by Neutron Reflectometry. <i>Langmuir</i> , 2005, 21, 8509-8514.	1.6	53
22	Structure and dynamics of β -lactalbumin adsorbed at a charged brush interface. <i>Physical Chemistry Chemical Physics</i> , 2008, 10, 1448.	1.3	50
23	Superlattice Structures in Poly(phenylenevinylene)-Based Self-Assembled Films. <i>Advanced Materials</i> , 1998, 10, 1104-1108.	11.1	46
24	Approaching the Precipitation Temperature of the Deposition Solution and the Effects on the Internal Order of Polyelectrolyte Multilayers. <i>Macromolecules</i> , 2005, 38, 5228-5235.	2.2	46
25	About different types of water in swollen polyelectrolyte multilayers. <i>Advances in Colloid and Interface Science</i> , 2014, 207, 325-331.	7.0	46
26	Fine-Tuning the Structure of Stimuli-Responsive Polymer Films by Hydrostatic Pressure and Temperature. <i>Macromolecules</i> , 2013, 46, 6541-6547.	2.2	43
27	Swelling Behavior of Self-Assembled Monolayers of Alkanethiol-Terminated Poly(ethylene glycol): A Neutron Reflectometry Study. <i>Langmuir</i> , 2004, 20, 3848-3853.	1.6	42
28	Nanoscale structural and mechanical effects of beta-amyloid (β 42) on polymer cushioned membranes: A combined study by neutron reflectometry and AFM Force Spectroscopy. <i>Biochimica Et Biophysica Acta - Biomembranes</i> , 2011, 1808, 2646-2655.	1.4	42
29	Relationships between fatty acid monolayer structure on the subphase and on solid substrates. <i>Thin Solid Films</i> , 1991, 205, 124-130.	0.8	41
30	Reversible Activation of Diblock Copolymer Monolayers at the Interface by pH Modulation, 1: A Lateral Chain Density and Conformation. <i>Journal of Physical Chemistry B</i> , 2006, 110, 9171-9176.	1.2	40
31	Adsorbed surfactant layers at polymer/liquid interfaces. A neutron reflectivity study. <i>Physical Chemistry Chemical Physics</i> , 2001, 3, 4044-4051.	1.3	39
32	Herringbone structure in two-dimensional single crystals of cyanine dyes. I. Detailed structure analysis using electron diffraction. <i>Journal of Chemical Physics</i> , 1995, 103, 818-825.	1.2	37
33	BioRef: A versatile time-of-flight reflectometer for soft matter applications at Helmholtz-Zentrum Berlin. <i>Review of Scientific Instruments</i> , 2011, 82, 055101.	0.6	37
34	An investigation of the spot profiles in transmission electron diffraction from Langmuir-Blodgett films of aliphatic chain compounds. <i>Journal De Physique</i> , 1990, 51, 1003-1026.	1.8	37
35	Temperature-dependent electron diffraction studies of cadmium arachidate monolayers and multilayers. <i>Thin Solid Films</i> , 1989, 178, 511-517.	0.8	36
36	Internal Interface of a Compressed PEG-PEO Diblock Copolymer Monolayer. <i>Langmuir</i> , 2003, 19, 709-716.	1.6	36

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37	Critical adsorption and boundary layer structure of 2-butoxyethanol+D2O mixtures at a hydrophilic silica surface. <i>Journal of Chemical Physics</i> , 2002, 116, 7177-7188.	1.2	35
38	The structure of PEO- <i>b</i> -PPO- <i>b</i> -PEO triblock copolymers at the water/air interface. <i>Physica B: Condensed Matter</i> , 2002, 315, 267-272.	1.3	35
39	Interaction of IAPP and Insulin with Model Interfaces Studied Using Neutron Reflectometry. <i>Biophysical Journal</i> , 2009, 96, 1115-1123.	0.2	33
40	Magnetic Proximity Effects in V/Fe Superconductor/Ferromagnet Single Bilayer Revealed by Waveguide-Enhanced Polarized Neutron Reflectometry. <i>Journal of Superconductivity and Novel Magnetism</i> , 2011, 24, 961-968.	0.8	33
41	Probing adsorption and aggregation of insulin at a poly(acrylic acid) brush. <i>Physical Chemistry Chemical Physics</i> , 2010, 12, 4375.	1.3	31
42	The Evaporation Resistance of Mixed Monolayers of Octadecanol and Cholesterol. <i>Journal of Colloid and Interface Science</i> , 1998, 207, 258-263.	5.0	30
43	Reversible Activation of Diblock Copolymer Monolayers at the Interface by pH Modulation, 2:Å Membrane Interactions at the Solid/Liquid Interface. <i>Journal of Physical Chemistry B</i> , 2006, 110, 9177-9182.	1.2	30
44	Impact of a model synovial fluid on supported lipid membranes. <i>Biochimica Et Biophysica Acta - Biomembranes</i> , 2012, 1818, 2648-2659.	1.4	30
45	Lateral structure of a surfactant layer adsorbed at a hydrophilic solid/liquid interface. <i>Europhysics Letters</i> , 2004, 67, 962-968.	0.7	29
46	The influence of interface roughness on the magnetic properties of exchange biased CoO/Fe thin films. <i>Journal of Applied Physics</i> , 2010, 107, .	1.1	29
47	Bilayer undulation dynamics in unilamellar phospholipid vesicles: Effect of temperature, cholesterol and trehalose. <i>Biochimica Et Biophysica Acta - Biomembranes</i> , 2014, 1838, 2412-2419.	1.4	27
48	Myelin model membranes on solid substrates. <i>Thin Solid Films</i> , 1998, 327-329, 627-631.	0.8	25
49	Phospholipid bilayer formation at a bare Si surface: a time-resolved neutron reflectivity study. <i>Journal of Physics Condensed Matter</i> , 2004, 16, S2469-S2476.	0.7	25
50	Surfactant Adsorption at the Metal-Oil Interface. <i>Langmuir</i> , 2011, 27, 6085-6090.	1.6	25
51	Structural investigations of Langmuir-Blodgett films of 2-docosylamino-5-nitropyridine, a new type of non-centrosymmetric multilayer for use in non-linear optics. <i>Thin Solid Films</i> , 1989, 178, 445-451.	0.8	24
52	Grazing Incidence X-ray Diffraction Studies of Thin Films Using an Imaging Plate Detection System. <i>Langmuir</i> , 1996, 12, 774-777.	1.6	24
53	Poly(styrene sulfonate) self-organization: electrostatic and secondary interactions. <i>Macromolecular Symposia</i> , 2004, 211, 93-106.	0.4	23
54	Analysis of Hofmeister Effects on the Density Profile of Protein Adsorbates: A Neutron Reflectivity Study. <i>Journal of Physical Chemistry B</i> , 2009, 113, 8462-8465.	1.2	23

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55	The lamellar-columnar transition in Langmuir-Blodgett multilayers of cadmium soaps. <i>Thin Solid Films</i> , 1994, 237, 236-243.	0.8	22
56	Stratification in Monolayers of a Bidisperse Melt Polymer Brush As Revealed by Neutron Reflectivity. <i>Macromolecules</i> , 1999, 32, 7599-7609.	2.2	22
57	Surface coatings of PEO- <i>b</i> -PPO-PEO block copolymers on native and polystyrene-coated silicon wafers. <i>Colloids and Surfaces A: Physicochemical and Engineering Aspects</i> , 2004, 246, 81-89.	2.3	21
58	Laminar Order within Langmuir-Blodgett Multilayers from Phospholipid and Myelin Basic Protein: A Neutron Reflectivity Study. <i>Langmuir</i> , 2007, 23, 8491-8496.	1.6	21
59	Shear Induced Relaxation of Polymer Micelles at the Solid-Liquid Interface. <i>Langmuir</i> , 2008, 24, 11331-11333.	1.6	21
60	Temperature Response of PNIPAM Derivatives at Planar Surfaces: Comparison between Polyelectrolyte Multilayers and Adsorbed Microgels. <i>ChemPhysChem</i> , 2010, 11, 3571-3579.	1.0	21
61	Exchange bias by implantation of O ions into Co thin films. <i>Applied Physics Letters</i> , 2010, 96, 132503.	1.5	21
62	Internal Structure of a Thin Film of Mixed Polymeric Micelles on a Solid/Liquid Interface. <i>Journal of Physical Chemistry B</i> , 2008, 112, 6937-6945.	1.2	20
63	Immobile Light Water and Proton-Deuterium Exchange in Polyelectrolyte Multilayers. <i>Macromolecules</i> , 2008, 41, 7179-7185.	2.2	20
64	Pressure-Induced Protein Adsorption at Aqueous-Solid Interfaces. <i>Langmuir</i> , 2013, 29, 8025-8030.	1.6	20
65	Interdependence between training and magnetization reversal in granular Co-CoO exchange bias systems. <i>Physical Review B</i> , 2014, 89, .	1.1	20
66	Spatial distribution of protein molecules adsorbed at a polyelectrolyte multilayer. <i>Physical Review E</i> , 2005, 71, 041912.	0.8	19
67	Thermal Stability of Poly(<i>o</i> -Methoxyaniline) Layer-by-Layer Films Investigated by Neutron Reflectivity and UV-VIS Spectroscopy. <i>Journal of Nanoscience and Nanotechnology</i> , 2006, 6, 1396-1404.	0.9	18
68	Probing the Room Temperature Deuterium Absorption Kinetics in Nanoscale Magnesium Based Hydrogen Storage Multilayers Using Neutron Reflectometry, X-ray Diffraction, and Atomic Force Microscopy. <i>Journal of Physical Chemistry C</i> , 2012, 116, 5868-5880.	1.5	18
69	Preparation of a New Oligolamellar Stratum Corneum Lipid Model. <i>Langmuir</i> , 2016, 32, 4673-4680.	1.6	18
70	Reduced Protein Adsorption by Osmolytes. <i>Langmuir</i> , 2011, 27, 6995-7001.	1.6	17
71	Neutron reflectivity studies of critical adsorption: The correspondence between a critical adsorption profile and specular neutron reflection. <i>Physical Review E</i> , 1999, 59, 5577-5581.	0.8	16
72	Neutron Reflectivity as Method to Study in-Situ Adsorption of Phospholipid Layers to Solid-Liquid Interfaces. <i>Advanced Engineering Materials</i> , 2004, 6, 832-836.	1.6	16

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73	Surface-Active Lipid Linings under Shear Load—A Combined in-Situ Neutron Reflectivity and ATR-FTIR Study. <i>Langmuir</i> , 2015, 31, 11539-11548.	1.6	15
74	High pressure cell for neutron reflectivity measurements up to 2500 bar. <i>Review of Scientific Instruments</i> , 2011, 82, 025106.	0.6	14
75	A Grazing-Incidence X-ray Diffraction Study of Octadecanol Monolayers at High Surface Pressures. <i>Langmuir</i> , 1998, 14, 7245-7249.	1.6	13
76	Pressure cell for investigations of solid-liquid interfaces by neutron reflectivity. <i>Review of Scientific Instruments</i> , 2011, 82, 023902.	0.6	13
77	Exchange bias induced by O ion implantation in ferromagnetic thin films. <i>Journal Physics D: Applied Physics</i> , 2012, 45, 405004.	1.3	13
78	On the explanation of the paramagnetic Meissner effect in superconductor/ferromagnet heterostructures. <i>Europhysics Letters</i> , 2016, 116, 17005.	0.7	13
79	Influence of magnetocrystalline anisotropy on the magnetization reversal mechanism in exchange bias Co/CoO bilayers. <i>Solid State Communications</i> , 2012, 152, 292-295.	0.9	12
80	Surface Relaxation of a Hexagonal Lyotropic Mesophase. <i>Journal of Physical Chemistry B</i> , 1998, 102, 7590-7595.	1.2	11
81	Specular and off-specular scattering with polarization and polarization analysis on reflectometer V6 at BER II, HZB. <i>Physica B: Condensed Matter</i> , 2011, 406, 1598-1606.	1.3	11
82	Drastic Swelling of Lipid Oligobilayers by Polyelectrolytes: A Potential Molecular Model for the Internal Structure of Lubricating Films in Mammalian Joints. <i>Langmuir</i> , 2018, 34, 1287-1299.	1.6	11
83	Substrate-stress-induced magnetic and nonmagnetic structural correlations in Fe/Si multilayers. <i>Journal of Applied Crystallography</i> , 2015, 48, 1023-1033.	1.9	11
84	Super-lattice structure in PPV-based self-assembled films. <i>Synthetic Metals</i> , 1999, 102, 1067-1068.	2.1	10
85	Boundary layers of aqueous surfactant and block copolymer solutions against hydrophobic and hydrophilic solid surfaces. <i>Journal of Physics Condensed Matter</i> , 2005, 17, S665-S683.	0.7	10
86	BioRef — a time-of-flight neutron reflectometer combined with in-situ infrared spectroscopy at the Helmholtz Centre Berlin. <i>Journal of Physics: Conference Series</i> , 2010, 251, 012059.	0.3	9
87	Structural investigations on low-temperature-polymerized monolayers of a diacetylenic Bronco lipid. <i>Thin Solid Films</i> , 1989, 178, 289-304.	0.8	8
88	Anomalous neutron reflectivity of H ₂ O-D ₂ O mixtures at the silicon/liquid interface. <i>Physica B: Condensed Matter</i> , 1999, 266, 198-208.	1.3	8
89	Volume profile of Î±-chymotrypsin during adsorption and enzymatic reaction on a poly(acrylic acid) brush. <i>Physical Chemistry Chemical Physics</i> , 2016, 18, 9070-9078.	1.3	8
90	Electrochemical lithiation of silicon electrodes: neutron reflectometry and secondary ion mass spectrometry investigations. <i>International Journal of Materials Research</i> , 2017, 108, 999-1007.	0.1	8

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91	Diol monolayer structure on the water surface and on solid substrates. <i>Langmuir</i> , 1993, 9, 2133-2140.	1.6	7
92	Hybrid biomembrane substructure determination by contrast-variation analysis. <i>Applied Physics A: Materials Science and Processing</i> , 2002, 74, s1262-s1263.	1.1	7
93	Simultaneous polarized neutron reflectometry and anisotropic magnetoresistance measurements. <i>Review of Scientific Instruments</i> , 2011, 82, 033902.	0.6	7
94	BioRef II – Neutron reflectometry with relaxed resolution for fast, kinetic measurements at HZB. <i>Review of Scientific Instruments</i> , 2016, 87, 105112.	0.6	7
95	Surface effects of lyotropic liquid crystalline phases of nonionic surfactants. <i>Colloids and Surfaces A: Physicochemical and Engineering Aspects</i> , 2000, 163, 91-101.	2.3	6
96	Neutron reflectivity studies of critical adsorption: Behavior of the surface scaling function. <i>Physical Review E</i> , 2005, 72, 041606.	0.8	6
97	Poly-acrylic Acid Brushes and Adsorbed Proteins. <i>Zeitschrift Fur Physikalische Chemie</i> , 2015, 229, 1119-1139.	1.4	6
98	Polymer-Induced Swelling of Solid-Supported Lipid Membranes. <i>Membranes</i> , 2016, 6, 2.	1.4	6
99	Organization of tethered polyoxazoline polymer brushes at the air/water interface. <i>Physica B: Condensed Matter</i> , 2000, 283, 37-39.	1.3	5
100	Responsive Polymerschichten. <i>Schaltbare Oberfläche. Chemie in Unserer Zeit</i> , 2008, 42, 102-115.	0.1	5
101	Deuterium absorption in Mg70Al30 thin films with bilayer catalysts: A comparative neutron reflectometry study. <i>Journal of Alloys and Compounds</i> , 2011, 509, 5466-5471.	2.8	5
102	Preordering phenomena of complex fluids at solid/liquid interfaces. <i>Physica B: Condensed Matter</i> , 1997, 234-236, 377-379.	1.3	4
103	Interfacial Effects of Dilute Solutions and Lyotropic Liquid Crystalline Phases of Nonionic Surfactants. <i>ACS Symposium Series</i> , 1999, , 24-39.	0.5	4
104	Composition Profile of a Wetting Film in a Binary Mixture. <i>Journal of Physical Chemistry C</i> , 2007, 111, 5568-5571.	1.5	4
105	Selective Self Assembly of Glutamate Molecules on Polyelectrolyte Multilayers. <i>Journal of Physical Chemistry B</i> , 2012, 116, 4492-4499.	1.2	4
106	Thermally Induced Rearrangement of Molecules in Barium Stearate Multilayer Films. <i>Physica Status Solidi (B): Basic Research</i> , 1997, 201, 67-73.	0.7	3
107	Surface effects accompanying the L ₁ ±-to-L ₁ ± transition of the amphiphile C12E4 in water as studied by Neutron reflectivity. <i>Zeitschrift Fur Elektrotechnik Und Elektrochemie</i> , 1998, 102, 1615-1619.	0.9	3
108	Magnetic state of Nb(l-7nm)/Cu₃₀/Ni₇₀(6nm) superlattices revealed by Polarized Neutron Reflectometry and SQUID magnetometry. <i>Journal of Physics: Conference Series</i> , 2017, 862, 012013.	0.3	3

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109	Soft Functional Interfaces. <i>Advanced Engineering Materials</i> , 2011, 13, 773-783.	1.6	2
110	An Analysis of the Broadening Induced by Beam Damage in Transmission Electron Diffraction Spots from an Oriented Aliphatic Monolayer. , 1991, , 365-375.		2
111	Membranes at interfaces: structure studies by AFM and time-resolved neutron reflectivity. <i>Cellular and Molecular Biology Letters</i> , 2002, 7, 240.	2.7	2
112	An electron diffraction study of deposited docosanoic acid monolayers. <i>Makromolekulare Chemie Macromolecular Symposia</i> , 1991, 46, 265-270.	0.6	1
113	Neutron reflectometry studies of Gd/Nb and Cu ₃₀ Ni ₇₀ /Nb superlattices. <i>Journal of Physics: Conference Series</i> , 2019, 1389, 012060.	0.3	1
114	Design of a horizontal neutron reflectometer for the European Spallation Source. <i>Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment</i> , 2014, 755, 85-96.	0.7	0
115	Structural Features of a DPPG Liposome Layer Adsorbed on a Rough Surface. <i>Lecture Notes in Computer Science</i> , 2019, , 138-144.	1.0	0
116	A Combined Wetting and Scattering Study of the Near Surface Ordering in Sugar Surfactant Based Bicontinuous Microemulsions at Hydrophilic and Hydrophobic Surfaces. , 2022, 2, .		0