Nicholas D Spencer

List of Publications by Year in descending order

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354 papers	22,084 citations	6613 79 h-index	13379 130 g-index
367 all docs	367 docs citations	367 times ranked	19191 citing authors

#	Article	IF	Citations
1	Poly(<scp>l</scp>-lysine)-g-Poly(ethylene glycol) Layers on Metal Oxide Surfaces:â€‰ Attachment Mechanism and Effects of Polymer Architecture on Resistance to Protein Adsorption. Journal of Physical Chemistry B, 2000, 104, 3298-3309.	2.6	620
2	A comparative study of protein adsorption on titanium oxide surfaces using in situ ellipsometry, optical waveguide lightmode spectroscopy, and quartz crystal microbalance/dissipation. Colloids and Surfaces B: Biointerfaces, 2002, 24, 155-170.	5.0	608
3	Poly(l-lysine)-g-poly(ethylene glycol) Layers on Metal Oxide Surfaces:Â Surface-Analytical Characterization and Resistance to Serum and Fibrinogen Adsorption. Langmuir, 2001, 17, 489-498.	3.5	490
4	Systematic study of osteoblast and fibroblast response to roughness by means of surface-morphology gradients. Biomaterials, 2007, 28, 2175-2182.	11.4	442
5	Nanoparticle printing with single-particle resolution. Nature Nanotechnology, 2007, 2, 570-576.	31.5	410
6	Poly(l-lysine)-graft-poly(ethylene glycol) Assembled Monolayers on Niobium Oxide Surfaces:â€‰ A Quantitative Study of the Influence of Polymer Interfacial Architecture on Resistance to Protein Adsorption by ToF-SIMS and in Situ OWLS. Langmuir, 2003, 19, 9216-9225.	3.5	382
7	Optical grating coupler biosensors. Biomaterials, 2002, 23, 3699-3710.	11.4	375
8	Covalent Attachment of Cell-Adhesive, (Arg-Gly-Asp)-Containing Peptides to Titanium Surfaces. Langmuir, 1998, 14, 5507-5516.	3.5	291
9	Effects of Ionic Strength and Surface Charge on Protein Adsorption at PEGylated Surfaces. Journal of Physical Chemistry B, 2005, 109, 17545-17552.	2.6	289
10	Surface characterization of implant materials c.p. Ti, Ti-6Al-7Nb and Ti-6Al-4V with different pretreatments. Journal of Materials Science: Materials in Medicine, 1999, 10, 35-46.	3.6	286
11	Probing Resistance to Protein Adsorption of Oligo(ethylene glycol)-Terminated Self-Assembled Monolayers by Scanning Force Microscopy. Journal of the American Chemical Society, 1999, 121, 10134-10141.	13.7	262
12	Biotin-Derivatized Poly(l-lysine)-g-poly(ethylene glycol):Â A Novel Polymeric Interface for Bioaffinity Sensing. Langmuir, 2002, 18, 220-230.	3.5	261
13	Influence of epidermal hydration on the friction of human skin against textiles. Journal of the Royal Society Interface, 2008, 5, 1317-1328.	3.4	261
14	Structural Chemistry of Self-Assembled Monolayers of Octadecylphosphoric Acid on Tantalum Oxide Surfaces. Langmuir, 2000, 16, 3257-3271.	3.5	256
15	Alkyl Phosphate Monolayers, Self-Assembled from Aqueous Solution onto Metal Oxide Surfaces. Langmuir, 2001, 17, 4014-4020.	3.5	248
16	Differential regulation of osteogenic differentiation of stem cells on surface roughness gradients. Biomaterials, 2014, 35, 9023-9032.	11.4	226
17	Surface-chemical and -morphological gradients. Soft Matter, 2008, 4, 419.	2.7	222
18	Sweet, Hairy, Soft, and Slippery. Science, 2008, 319, 575-576.	12.6	221

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19	The relationship between skin function, barrier properties, and bodyâ€dependent factors. Skin Research and Technology, 2018, 24, 165-174.	1.6	212
20	Microscopic Mechanism for Shear Thickening of Non-Brownian Suspensions. Physical Review Letters, 2013, 111, 108301.	7.8	207
21	Self-Assembled Monolayers of Dodecyl and Hydroxy-dodecyl Phosphates on Both Smooth and Rough Titanium and Titanium Oxide Surfaces. Langmuir, 2002, 18, 3537-3548.	3.5	197
22	Influence of Alkyl Chain Length on Phosphate Self-Assembled Monolayers. Langmuir, 2007, 23, 8053-8060.	3.5	195
23	Immobilization of the cell-adhesive peptide Arg-Gly-Asp-Cys (RGDC) on titanium surfaces by covalent chemical attachment. Journal of Materials Science: Materials in Medicine, 1997, 8, 867-872.	3.6	193
24	Partial oxidation of methane to formaldehyde by means of molecular oxygen. Journal of Catalysis, 1988, 109, 187-197.	6.2	177
25	PEG-Stabilized Coreâ€“Shell Nanoparticles: Impact of Linear versus Dendritic Polymer Shell Architecture on Colloidal Properties and the Reversibility of Temperature-Induced Aggregation. ACS Nano, 2013, 7, 316-329.	14.6	176
26	Beyond the Lotus Effect: Roughness Influences on Wetting over a Wide Surface-Energy Range. Langmuir, 2008, 24, 5411-5417.	3.5	175
27	Comparative investigation of the surface properties of commercial titanium dental implants. Part I: chemical composition. Journal of Materials Science: Materials in Medicine, 2002, 13, 535-548.	3.6	170
28	Density Fluctuations Under Confinement: When Is a Fluid Not a Fluid?. Science, 2001, 292, 905-908.	12.6	165
29	Protein-mediated boundary lubrication in arthroplasty. Biomaterials, 2005, 26, 1165-1173.	11.4	158
30	Systematic study of osteoblast response to nanotopography by means of nanoparticle-density gradients. Biomaterials, 2007, 28, 5000-5006.	11.4	158
31	Porcine Gastric Mucin (PGM) at the Water/Poly(Dimethylsiloxane) (PDMS) Interface:Â Influence of pH and Ionic Strength on Its Conformation, Adsorption, and Aqueous Lubrication Properties. Langmuir, 2005, 21, 8344-8353.	3.5	157
32	Selective Molecular Assembly Patterning:Â A New Approach to Micro- and Nanochemical Patterning of Surfaces for Biological Applications. Langmuir, 2002, 18, 3281-3287.	3.5	151
33	A simple, controllable source for dosing molecular halogens in UHV. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 1983, 1, 1554-1555.	2.1	150
34	Characterization of anodic spark-converted titanium surfaces for biomedical applications. Journal of Materials Science: Materials in Medicine, 1999, 10, 453-457.	3.6	150
35	A Simple, Reproducible Approach to the Preparation of Surface-Chemical Gradients. Langmuir, 2003, 19, 10459-10462.	3.5	148
36	A Biomimetic Alternative to Poly(ethylene glycol) as an Antifouling Coating: Resistance to Nonspecific Protein Adsorption of Poly(<scp>l</scp>-lysine)-graft-dextran. Langmuir, 2008, 24, 8850-8856.	3.5	147

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37	Interaction Forces and Morphology of a Protein-Resistant Poly(ethylene glycol) Layer. Biophysical Journal, 2005, 88, 495-504.	0.5	143
38	Oriented Assembly of Gold Nanorods on the Singleâ€Particle Level. Advanced Functional Materials, 2012, 22, 702-708.	14.9	140
39	The Influence of Molecular Architecture on the Macroscopic Lubrication Properties of the Brush-Like Co-polyelectrolyte Poly(L-lysine)-g-poly(ethylene glycol) (PLL-g-PEG) Adsorbed on Oxide Surfaces. Tribology Letters, 2003, 15, 395-405.	2.6	139
40	V2O5$z.sbnd;SiO2-catalyzed methane partial oxidation with molecular oxygen. Journal of Catalysis, 1989, 116, 399-406.	6.2	137
41	Title is missing!. Tribology Letters, 2003, 15, 231-239.	2.6	136
42	Lubrication Properties of a Brushlike Copolymer as a Function of the Amount of Solvent Absorbed within the Brush. Macromolecules, 2005, 38, 5706-5713.	4.8	134
43	Tribofilm formation from ZnDTP on diamond-like carbon. Wear, 2008, 264, 316-321.	3.1	131
44	Relationship between Interfacial Forces Measured by Colloid-Probe Atomic Force Microscopy and Protein Resistance of Poly(ethylene glycol)-Grafted Poly(l-lysine) Adlayers on Niobia Surfaces. Langmuir, 2005, 21, 6508-6520.	3.5	125
45	A Novel Approach To Produce Biologically Relevant Chemical Patterns at the Nanometer Scale:Â Selective Molecular Assembly Patterning Combined with Colloidal Lithography. Langmuir, 2002, 18, 8580-8586.	3.5	124
46	Osteogenic differentiation of human mesenchymal stem cells in the absence of osteogenic supplements: A surface-roughness gradient study. Acta Biomaterialia, 2015, 28, 64-75.	8.3	124
47	Sensitivity of Frictional Forces to pH on a Nanometer Scale: A Lateral Force Microscopy Study. Langmuir, 1995, 11, 4632-4635.	3.5	123
48	Proliferation, behavior, and differentiation of osteoblasts on surfaces of different microroughness. Dental Materials, 2016, 32, 1374-1384.	3.5	119
49	Nitrilotriacetic Acid Functionalized Graft Copolymers: A Polymeric Interface for Selective and Reversible Binding of Histidine-Tagged Proteins. Advanced Functional Materials, 2006, 16, 243-251.	14.9	116
50	Roughness-dependent tribology effects on discontinuous shear thickening. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, 5117-5122.	7.1	116
51	The role of nanostructures and hydrophilicity in osseointegration: Inâ€vitro proteinâ€adsorption and bloodâ€interaction studies. Journal of Biomedical Materials Research - Part A, 2015, 103, 2661-2672.	4.0	112
52	Surface activation of polyetheretherketone (PEEK) and formation of calcium phosphate coatings by precipitation. Journal of Materials Science: Materials in Medicine, 1997, 8, 683-690.	3.6	111
53	Chemical Design of Nonâ€Ionic Polymer Brushes as Biointerfaces: Poly(2â€oxazine)s Outperform Both Poly(2â€oxazoline)s and PEG. Angewandte Chemie - International Edition, 2018, 57, 11667-11672.	13.8	110
54	Nanotribology of Surface-Grafted PEG Layers in an Aqueous Environment. Langmuir, 2008, 24, 1484-1488.	3.5	109

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55	Microslips to â€œAvalanchesâ€•in Confined, Molecular Layers of Ionic Liquids. Journal of Physical Chemistry Letters, 2014, 5, 179-184.	4.6	107
56	Title is missing!. Tribology Letters, 2001, 10, 111-116.	2.6	106
57	Chain-length-identification strategy in zinc polyphosphate glasses by means of XPS and ToF-SIMS. Analytical and Bioanalytical Chemistry, 2012, 403, 1415-1432.	3.7	102
58	Highly Oriented, Self-Assembled Alkanephosphate Monolayers on Tantalum(V) Oxide Surfaces. Langmuir, 1999, 15, 4324-4327.	3.5	101
59	Skinâ€“textile friction and skin elasticity in young and aged persons. Skin Research and Technology, 2009, 15, 288-298.	1.6	98
60	Ionic Liquids Confined in Hydrophilic Nanocontacts: Structure and Lubricity in the Presence of Water. Journal of Physical Chemistry C, 2014, 118, 6491-6503.	3.1	98
61	XPS study of the influence of temperature on ZnDTP tribofilm composition. Tribology Letters, 2007, 25, 185-196.	2.6	97
62	Surface-Grafted, Covalently Cross-Linked Hydrogel Brushes with Tunable Interfacial and Bulk Properties. Macromolecules, 2011, 44, 5344-5351.	4.8	94
63	Microcontact Printing of Macromolecules with Submicrometer Resolution by Means of Polyolefin Stamps. Langmuir, 2003, 19, 6104-6109.	3.5	93
64	Orientation and electronic structure of methylene blue on mica: A near edge xâ€ray absorption fine structure spectroscopy study. Journal of Chemical Physics, 1996, 104, 7749-7757.	3.0	91
65	A single crystal study of the initial stages of silver sulphidation: The chemisorption and reactivity of molecular sulphur (S2) on Ag(111). Surface Science, 1979, 81, 273-284.	1.9	90
66	Toward a Force Spectroscopy of Polymer Surfaces. Langmuir, 1998, 14, 372-378.	3.5	89
67	Aqueous lubrication of polymers: Influence of surface modification. Tribology International, 2005, 38, 922-930.	5.9	89
68	Friction Measurements on Contact Lenses in Their Operating Environment. Tribology Letters, 2011, 44, 387-397.	2.6	89
69	Reduction of Friction at Oxide Interfaces upon Polymer Adsorption from Aqueous Solutions. Langmuir, 2004, 20, 423-428.	3.5	88
70	Combined in situ (ATR FT-IR) and ex situ (XPS) Study of the ZnDTP-Iron Surface Interaction. Tribology Letters, 2003, 15, 181-191.	2.6	87
71	Structure sensitivity in the iron single-crystal catalysed synthesis of ammonia. Nature, 1981, 294, 643-644.	27.8	86
72	Printing Chemical Gradients. Langmuir, 2005, 21, 7796-7804.	3.5	85

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73	Preferential Solvation and Its Effect on the Lubrication Properties of a Surface-Bound, Brushlike Copolymer. Macromolecules, 2005, 38, 3861-3866.	4.8	84
74	Fabricating Chemical Gradients on Oxide Surfaces by Means of Fluorinated, Catechol-Based, Self-Assembled Monolayers. Langmuir, 2010, 26, 16211-16220.	3.5	84
75	Controlling Adhesion Force by Means of Nanoscale Surface Roughness. Langmuir, 2011, 27, 9972-9978.	3.5	84
76	Spontaneous Blinking from a Tribological Viewpoint. Ocular Surface, 2015, 13, 236-249.	4.4	84
77	Superconducting and magnetic phase boundaries inBi2Sr2Ca1â^'xMxCu2O8, withM=Y, Gd, and Pr. Physical Review B, 1992, 45, 7436-7443.	3.2	82
78	Tribological Properties of Poly(<scp>l</scp>-lysine)-graft-poly(ethylene glycol) Films: Influence of Polymer Architecture and Adsorbed Conformation. ACS Applied Materials & Interfaces, 2009, 1, 1224-1230.	8.0	82
79	A novel lowâ€friction surface for biomedical applications: Modification of poly(dimethylsiloxane) (PDMS) with polyethylene glycol(PEG)â€ĐOPAâ€lysine. Journal of Biomedical Materials Research - Part A, 2009, 90A, 742-749.	4.0	81
80	Anisotropic Wetting of Microstructured Surfaces as a Function of Surface Chemistry. ACS Applied Materials & Interfaces, 2012, 4, 123-130.	8.0	81
81	Instrumental improvements in optical waveguide light mode spectroscopy for the study of biomolecule adsorption. Review of Scientific Instruments, 1997, 68, 2172-2176.	1.3	79
82	Influence of Molecular Architecture on the Adsorption of Poly(ethylene oxide)â^'Poly(propylene) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 38 Macromolecules, 2004, 37, 8349-8356.	4.8	78
83	Compressing PEG Brushes. Macromolecules, 2005, 38, 5254-5259.	4.8	78
84	The Effect of Surface Ions on Water Adsorption to Mica. Langmuir, 2008, 24, 1566-1569.	3.5	78
85	Critical currents and magnetization incâ€axis textured Biâ€Pbâ€Srâ€Caâ€Cuâ€O superconductors. Applied Physics Letters, 1991, 58, 868-870.	3.3	77
86	Sliding friction of polyethylene on ice: tribometer measurements. Tribology Letters, 2006, 24, 77-84.	2.6	76
87	Room-Temperature, Aqueous-Phase Fabrication of Poly(methacrylic acid) Brushes by UV-LED-Induced, Controlled Radical Polymerization with High Selectivity for Surface-Bound Species. Macromolecules, 2009, 42, 9124-9132.	4.8	76
88	Molecular-Weight Determination of Polymer Brushes Generated by SI-ATRP on Flat Surfaces. Macromolecules, 2014, 47, 269-275.	4.8	76
89	Sliding friction of polyethylene on snow and ice: Contact area and modeling. Cold Regions Science and Technology, 2007, 47, 276-289.	3.5	75
90	Adsorption and surface chemistry in tribology. Tribology International, 1997, 30, 881-888.	5.9	74

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91	Closing the Gap Between Self-Assembly and Microsystems Using Self-Assembly, Transfer, and Integration of Particles. Advanced Materials, 2005, 17, 2438-2442.	21.0	73
92	The adsorption and lubrication behavior of synovial fluid proteins and glycoproteins on the bearing-surface materials of hip replacements. Biomaterials, 2009, 30, 2072-2078.	11.4	73
93	Directed Placement of Gold Nanorods Using a Removable Template for Guided Assembly. Nano Letters, 2011, 11, 3957-3962.	9.1	72
94	Wavelength-dependent measurement and evaluation of surface topographies: application of a new concept of window roughness and surface transfer function. Wear, 2000, 237, 231-252.	3.1	70
95	Title is missing!. Tribology Letters, 2003, 15, 199-209.	2.6	70
96	Surface modification of PLGA microspheres. Journal of Biomedical Materials Research - Part A, 2003, 66A, 55-61.	4.0	70
97	Plasma protein adsorption on titanium: comparative in situ studies using optical waveguide lightmode spectroscopy and ellipsometry. Colloids and Surfaces B: Biointerfaces, 1998, 11, 187-201.	5.0	69
98	The role of plasma proteins in cell adhesion to PEG surface-density-gradient-modified titanium oxide. Biomaterials, 2011, 32, 8968-8978.	11.4	69
99	XPS, AES and ToF-SIMS investigation of surface films and the role of inclusions on pitting corrosion in austenitic stainless steels. Surface and Interface Analysis, 2000, 29, 460-467.	1.8	67
100	Surface chemistry in tribology. Proceedings of the Institution of Mechanical Engineers, Part J: Journal of Engineering Tribology, 2002, 216, 443-461.	1.8	67
101	Block Copolymer Thermoplastic Elastomers for Microcontact Printing. Langmuir, 2003, 19, 10957-10961.	3.5	67
102	Study of skinâ€“fabric interactions of relevance to decubitus: friction and contactâ€pressure measurements. Skin Research and Technology, 2008, 14, 77-88.	1.6	66
103	Tribochemistry of Bulk Zinc Metaphosphate Glasses. Tribology Letters, 2010, 39, 121-134.	2.6	66
104	Nonfouling Response of Hydrophilic Uncharged Polymers. Advanced Functional Materials, 2013, 23, 5706-5718.	14.9	65
105	Irreversibility temperatures inc-axis-oriented powders ofYBa2Cu3O7,Bi2Sr2CaCu2O8, andBi2Sr2Ca2Cu3O10. Physical Review B, 1990, 42, 8756-8759.	3.2	64
106	A Tribological Model for Chocolate in the Mouth: General Implications for Slurry-Lubricated Hard/Soft Sliding Counterfaces. Tribology Letters, 2004, 16, 239-249.	2.6	64
107	Lubrication with Oil-Compatible Polymer Brushes. Tribology Letters, 2012, 45, 477-487.	2.6	64
108	Adsorption Properties of Poly(<scp>l</scp>-lysine)-graft-poly(ethylene glycol) (PLL-g-PEG) at a Hydrophobic Interface: Influence of Tribological Stress, pH, Salt Concentration, and Polymer Molecular Weight. Langmuir, 2008, 24, 9479-9488.	3.5	63

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109	The effect of sodium on the MoO3$z.sbnd;SiO2-catalyzed partial oxidation of methane. Journal of Catalysis, 1990, 126, 546-554.	6.2	62
110	Growth of Tribological Films:Â In Situ Characterization Based on Attenuated Total Reflection Infrared Spectroscopy. Langmuir, 2002, 18, 6606-6613.	3.5	62
111	Irreversible structural change of a dry ionic liquid under nanoconfinement. Physical Chemistry Chemical Physics, 2015, 17, 13613-13624.	2.8	62
112	Partial oxidation of CH4 to HCHO over a MoO3-SiO2 catalyst: A kinetic study. AICHE Journal, 1987, 33, 1808-1812.	3.6	61
113	Resonant inverse photoemission ofBi2Ca1+xSr2â^'xCu2O8+yandYBa2Cu3O7â^'x, unoccupied oxygen states, and plasmons. Physical Review B, 1989, 39, 2928-2931.	3.2	61
114	Effect of alkali metal cations on the structure of Mo(VI)/SiO2 catalysts and its relevance to the selective oxidation of methane and methanol. Journal of Catalysis, 1994, 146, 204-210.	6.2	61
115	Diffusion of Alkanethiols in PDMS and Its Implications on Microcontact Printing (Î¼CP). Langmuir, 2005, 21, 622-632.	3.5	61
116	Fabrication and Interfacial Properties of Polymer Brush Gradients by Surface-Initiated Cu(0)-Mediated Controlled Radical Polymerization. Macromolecules, 2017, 50, 2436-2446.	4.8	61
117	Macrotribological Studies of Poly(L-lysine)-graft-Poly(ethylene glycol) in Aqueous Glycerol Mixtures. Tribology Letters, 2010, 37, 541-552.	2.6	60
118	The implant material, Ti6Al7Nb: surface microstructure, composition and properties. Journal of Materials Science: Materials in Medicine, 1999, 10, 191-198.	3.6	59
119	Oxygen Tolerant and Cytocompatible Iron(0)-Mediated ATRP Enables the Controlled Growth of Polymer Brushes from Mammalian Cell Cultures. Journal of the American Chemical Society, 2020, 142, 3158-3164.	13.7	59
120	Chlorine chemisorption and surface chloride formation on Au(111). Surface Science, 1981, 107, 237-248.	1.9	58
121	Improved instrumentation to carry out surface analysis and to monitor chemical surface reactions in situ on small area catalysts over a wide pressure range (10â^'8â€“105 Torr). Review of Scientific Instruments, 1982, 53, 1888-1893.	1.3	58
122	Fabrication of Multiscale Surface-Chemical Gradients by Means of Photocatalytic Lithography. Langmuir, 2007, 23, 3489-3494.	3.5	58
123	Chemical Reactivity of Triphenyl Phosphorothionate (TPPT) with Iron: An ATR/FT-IR and XPS Investigation. Journal of Physical Chemistry C, 2011, 115, 1339-1354.	3.1	57
124	Chemically patterned, metal oxide based surfaces produced by photolithographic techniques for studying proteinâ€“ and cellâ€“surface interactions I: Microfabrication and surface characterization. Biomaterials, 2003, 24, 1133-1145.	11.4	56
125	Polymer-Brush Lubrication in Oil: Sliding Beyond the Stribeck Curve. Tribology Letters, 2013, 49, 263-272.	2.6	56
126	Design and characterization of ultrastable, biopassive and lubricious cyclic poly(2-alkyl-2-oxazoline) brushes. Polymer Chemistry, 2018, 9, 2580-2589.	3.9	56

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127	Functionalizable Nanomorphology Gradients via Colloidal Self-Assembly. Langmuir, 2007, 23, 5929-5935.	3.5	55
128	Pressure Dependence of ZnDTP Tribochemical Film Formation: A Combinatorial Approach. Tribology Letters, 2007, 28, 209-222.	2.6	55
129	Precise Placement of Gold Nanorods by Capillary Assembly. Langmuir, 2011, 27, 6305-6310.	3.5	54
130	Self-healing behavior of a polyelectrolyte-based lubricant additive for aqueous lubrication of oxide materials. Tribology Letters, 2006, 24, 217-223.	2.6	53
131	Capabilities of Femtosecond Laser Ablation Inductively Coupled Plasma Mass Spectrometry for Depth Profiling of Thin Metal Coatings. Analytical Chemistry, 2007, 79, 2325-2333.	6.5	53
132	Polymer Brushes under Shear: Molecular Dynamics Simulations Compared to Experiments. Langmuir, 2015, 31, 4798-4805.	3.5	53
133	Surface-Initiated Photoinduced ATRP: Mechanism, Oxygen Tolerance, and Temporal Control during the Synthesis of Polymer Brushes. Macromolecules, 2020, 53, 2801-2810.	4.8	53
134	Feasibility study of an online toxicological sensor based on the optical waveguide technique. Biosensors and Bioelectronics, 2000, 15, 423-429.	10.1	52
135	A comparison of osteoclast resorption pits on bone with titanium andÂzirconia surfaces. Biomaterials, 2010, 31, 7321-7331.	11.4	52
136	Simulation of methane partial oxidation over silica-supported MoO3 and V2O5. AICHE Journal, 1991, 37, 87-97.	3.6	51
137	Surface reactivity of tributyl thiophosphate: effects of temperature and mechanical stress. Tribology Letters, 2006, 23, 197-208.	2.6	51
138	Spatial Tuning of the Metal Work Function by Means of Alkanethiol and Fluorinated Alkanethiol Gradients. Journal of Physical Chemistry C, 2009, 113, 5620-5628.	3.1	51
139	Multiple Transmission-Reflection IR Spectroscopy Shows that Surface Hydroxyls Play Only a Minor Role in Alkylsilane Monolayer Formation on Silica. Journal of Physical Chemistry Letters, 2013, 4, 2745-2751.	4.6	51
140	Crosslinking Polymer Brushes with Ethylene Glycol-Containing Segments: Influence on Physicochemical and Antifouling Properties. Langmuir, 2016, 32, 10317-10327.	3.5	51
141	Effect of the environmental humidity on the bulk, interfacial and nanoconfined properties of an ionic liquid. Physical Chemistry Chemical Physics, 2016, 18, 22719-22730.	2.8	51
142	Growing Polymer Brushes from a Variety of Substrates under Ambient Conditions by Cu⁰-Mediated Surface-Initiated ATRP. ACS Applied Materials & Interfaces, 2019, 11, 27470-27477.	8.0	50
143	Translating Surface-Initiated Atom Transfer Radical Polymerization into Technology: The Mechanism of Cu⁰-Mediated SI-ATRP under Environmental Conditions. ACS Macro Letters, 2019, 8, 865-870.	4.8	50
144	Linking Friction and Surface Properties of Hydrogels Molded Against Materials of Different Surface Energies. Langmuir, 2019, 35, 15805-15812.	3.5	49

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145	Orthogonal nanometer-micrometer roughness gradients probe morphological influences on cell behavior. Biomaterials, 2012, 33, 8055-8061.	11.4	48
146	Layering of ionic liquids on rough surfaces. Nanoscale, 2016, 8, 4094-4106.	5.6	48
147	Fabrication of material-independent morphology gradients for high-throughput applications. Applied Surface Science, 2006, 253, 2148-2153.	6.1	47
148	Cassie-State Wetting Investigated by Means of a Hole-to-Pillar Density Gradient. Langmuir, 2010, 26, 9465-9473.	3.5	47
149	Reactions of zinc-free anti-wear additives in DLC/DLC and steel/steel contacts. Tribology International, 2008, 41, 1090-1096.	5.9	46
150	Impact of Hydrophilic/Hydrophobic Surface Chemistry on Hydration Forces in the Absence of Confinement. Langmuir, 2012, 28, 6589-6594.	3.5	46
151	In vivo confirmation of hydration-induced changes in human-skin thickness, roughness and interaction with the environment. Biointerphases, 2016, 11, 031015.	1.6	46
152	The influence of surface grafting on the growth rate of polymer chains. Polymer Chemistry, 2016, 7, 302-309.	3.9	46
153	Covalent Attachment of Novel Poly(ethylene glycol)â^'Poly(dl-lactic acid) Copolymeric Micelles to TiO2Surfaces. Langmuir, 2002, 18, 252-258.	3.5	45
154	Submicrometer Structure of Surface-Chemical Gradients Prepared by a Two-Step Immersion Method. Langmuir, 2006, 22, 2706-2711.	3.5	45
155	Aqueous Lubrication of SiC and Si3N4 Ceramics Aided by a Brush-like Copolymer Additive, Poly(l-lysine)-graft-poly(ethylene glycol). Tribology Letters, 2009, 34, 201-210.	2.6	45
156	Reducing Friction in the Eye: A Comparative Study of Lubrication by Surface-Anchored Synthetic and Natural Ocular Mucin Analogues. ACS Applied Materials & Interfaces, 2017, 9, 20150-20160.	8.0	45
157	Controlled Crosslinking Is a Tool To Precisely Modulate the Nanomechanical and Nanotribological Properties of Polymer Brushes. Macromolecules, 2017, 50, 2932-2941.	4.8	45
158	Influence of Salt on the Aqueous Lubrication Properties of End-Grafted, Ethylene Glycol-Based Self-Assembled Monolayers. ACS Applied Materials & Interfaces, 2009, 1, 1105-1112.	8.0	44
159	Response of Osteoclasts to Titanium Surfaces with Increasing Surface Roughness: An In Vitro Study. Biointerphases, 2012, 7, 34.	1.6	44
160	Stratified Polymer Grafts: Synthesis and Characterization of Layered â€˜Brushâ€™ and â€˜Gelâ€™ Structures. Advanced Materials Interfaces, 2014, 1, 1300007.	3.7	44
161	The Role of Cu⁰ in Surface-Initiated Atom Transfer Radical Polymerization: Tuning Catalyst Dissolution for Tailoring Polymer Interfaces. Macromolecules, 2018, 51, 6825-6835.	4.8	44
162	Topological Polymer Chemistry Enters Materials Science: Expanding the Applicability of Cyclic Polymers. ACS Macro Letters, 2020, 9, 1024-1033.	4.8	44

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