

# Oswald Prucker

## List of Publications by Year in descending order

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79  
papers

4,328  
citations

147801

31  
h-index

106344

65  
g-index

81  
all docs

81  
docs citations

81  
times ranked

3855  
citing authors

#	ARTICLE	IF	CITATIONS
1	Synthesis of Poly(styrene) Monolayers Attached to High Surface Area Silica Gels through Self-Assembled Monolayers of Azo Initiators. <i>Macromolecules</i> , 1998, 31, 592-601.	4.8	612
2	Mechanism of Radical Chain Polymerizations Initiated by Azo Compounds Covalently Bound to the Surface of Spherical Particles. <i>Macromolecules</i> , 1998, 31, 602-613.	4.8	416
3	Photochemical Attachment of Polymer Films to Solid Surfaces via Monolayers of Benzophenone Derivatives. <i>Journal of the American Chemical Society</i> , 1999, 121, 8766-8770.	13.7	387
4	Polymer Layers through Self-Assembled Monolayers of Initiators. <i>Langmuir</i> , 1998, 14, 6893-6898.	3.5	262
5	The Polymer-Supported Phospholipid Bilayer: A Tethering as a New Approach to Substrate Membrane Stabilization. <i>Biomacromolecules</i> , 2002, 3, 27-35.	5.4	186
6	On the glass transition in ultrathin polymer films of different molecular architecture. <i>Macromolecular Chemistry and Physics</i> , 1998, 199, 1435-1444.	2.2	159
7	Swelling of a polymer brush probed with a quartz crystal resonator. <i>Physical Review E</i> , 1997, 56, 680-689.	2.1	158
8	Magnetically-actuated artificial cilia for microfluidic propulsion. <i>Lab on A Chip</i> , 2011, 11, 2002.	6.0	147
9	Protein-resistant polymer surfaces. <i>Journal of Materials Chemistry</i> , 2012, 22, 19547.	6.7	112
10	Toward a New Generation of Smart Biomimetic Actuators for Architecture. <i>Advanced Materials</i> , 2018, 30, e1703653.	21.0	108
11	Microstructuring of Molecularly Thin Polymer Layers by Photolithography. <i>Advanced Materials</i> , 1998, 10, 1073-1077.	21.0	107
12	Surface Attached Polymer Networks through Thermally Induced Cross-Linking of Sulfonyl Azide Group Containing Polymers. <i>Macromolecules</i> , 2008, 41, 9284-9289.	4.8	83
13	Grafting Through Mechanistic Aspects of Radical Polymerization Reactions with Surface-Attached Monomers. <i>Macromolecules</i> , 2014, 47, 2929-2937.	4.8	82
14	Artificial Cilia: Generation of Magnetic Actuators in Microfluidic Systems. <i>Advanced Functional Materials</i> , 2011, 21, 3314-3320.	14.9	76
15	Surface-attached hydrogel coatings via C,H-insertion crosslinking for biomedical and bioanalytical applications (Review). <i>Biointerphases</i> , 2018, 13, 010801.	1.6	71
16	Polymeric coatings for biomedical devices. <i>Surface Science</i> , 2004, 570, 111-118.	1.9	65
17	Synthesis of Functionalized Polymer Monolayers from Active Ester Brushes. <i>Macromolecules</i> , 2007, 40, 5497-5503.	4.8	64
18	Experimental investigation of the flow induced by artificial cilia. <i>Lab on A Chip</i> , 2011, 11, 2017.	6.0	62

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19	Influence of the Molecular Structure of Surface-Attached Poly( <i>N</i> -alkyl Acrylamide) Coatings on the Interaction of Surfaces with Proteins, Cells and Blood Platelets. <i>Macromolecular Bioscience</i> , 2013, 13, 873-884.	4.1	62
20	Single-step centrifugal hematocrit determination on a 10- $\mu$ processing device. <i>Biomedical Microdevices</i> , 2007, 9, 795-799.	2.8	61
21	Simple One-Step Process for Immobilization of Biomolecules on Polymer Substrates Based on Surface-Attached Polymer Networks. <i>Langmuir</i> , 2011, 27, 6116-6123.	3.5	59
22	Polymer Brushes with Nanometer-Scale Gradients. <i>Advanced Materials</i> , 2009, 21, 4706-4710.	21.0	56
23	Enzyme Containing Redox Polymer Networks for Biosensors or Biofuel Cells: A Photochemical Approach. <i>Langmuir</i> , 2010, 26, 6019-6027.	3.5	55
24	Grafting of polymers to solid surfaces by using immobilized methacrylates. <i>Colloids and Surfaces A: Physicochemical and Engineering Aspects</i> , 2002, 198-200, 543-549.	4.7	51
25	Surface-Attached PDMAA-GRGDSP Hybrid Polymer Monolayers that Promote the Adhesion of Living Cells. <i>Biomacromolecules</i> , 2008, 9, 543-552.	5.4	49
26	A polymer-based DNA biochip platform for human papilloma virus genotyping. <i>Journal of Virological Methods</i> , 2010, 163, 40-48.	2.1	42
27	Photolithographic structuring of surface-attached polymer monolayers. <i>Materials Science and Engineering C</i> , 1999, 8-9, 291-297.	7.3	39
28	Tunable Bragg filters based on polymer swelling. <i>Applied Optics</i> , 2006, 45, 4284.	2.1	38
29	Surface-attached polymer monolayers for the control of endothelial cell adhesion. <i>Colloids and Surfaces A: Physicochemical and Engineering Aspects</i> , 2002, 198-200, 519-526.	4.7	37
30	A Robust Method for the Immobilization of Polymer Molecules on SiO <sub>2</sub> Surfaces. <i>Macromolecules</i> , 2008, 41, 873-878.	4.8	37
31	Printed protein microarrays on unmodified plastic substrates. <i>Analytica Chimica Acta</i> , 2010, 671, 92-98.	5.4	31
32	Tailor-Made Polymer Multilayers. <i>Advanced Functional Materials</i> , 2013, 23, 6019-6023.	14.9	31
33	Preparation of Surface-Attached Polymer Layers by Thermal or Photochemical Activation of $\alpha$ -Diazoester Moieties. <i>Langmuir</i> , 2013, 29, 10932-10939.	3.5	29
34	The Surface Science of Microarray Generation—A Critical Inventory. <i>ACS Applied Materials &amp; Interfaces</i> , 2019, 11, 39397-39409.	8.0	25
35	On the Lubrication Mechanism of Surfaces Covered with Surface-Attached Hydrogels. <i>Macromolecular Chemistry and Physics</i> , 2016, 217, 526-536.	2.2	23
36	Polymer Microstructures through Two-Photon Crosslinking. <i>Advanced Materials</i> , 2017, 29, 1703469.	21.0	22

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37	Imaging of polymer monolayers attached to silica surfaces by element specific transmission electron microscopy. <i>Polymer</i> , 1996, 37, 1087-1093.	3.8	21
38	On the Generation of Polyether-Based Coatings through Photoinduced C,H Insertion Crosslinking. <i>Macromolecular Chemistry and Physics</i> , 2016, 217, 1457-1466.	2.2	21
39	Attachment of Polymer Films to Solid Surfaces via Thermal Activation of Self-assembled Monolayers Containing Sulphonyl Azide Group. <i>Langmuir</i> , 2010, 26, 769-774.	3.5	20
40	Humidity Driven Swelling of the Surface-Attached Poly( <i>N</i> -alkylacrylamide) Hydrogels. <i>Macromolecules</i> , 2016, 49, 8254-8264.	4.8	20
41	Platelet Repellent Properties of Hydrogel Coatings on Polyurethane-Coated Glass Surfaces. <i>ASAIO Journal</i> , 2014, 60, 587-593.	1.6	18
42	PDMAA Hydrogel Coated U-Bend Humidity Sensor Suited for Mass-Production. <i>Sensors</i> , 2017, 17, 517.	3.8	18
43	On the relationship of YAP and FAK in hMSCs and osteosarcoma cells: Discrimination of FAK modulation by nuclear YAP depletion or YAP silencing. <i>Cellular Signalling</i> , 2019, 63, 109382.	3.6	18
44	Surface attached ultrathin polymer monolayers for control of cell adhesion. <i>Annals of Thoracic Surgery</i> , 2001, 71, S437-S440.	1.3	17
45	Cooperative Diffusion of End-Grafted Polymer Brushes in Good Solvents. <i>Macromolecules</i> , 2005, 38, 8960-8962.	4.8	16
46	Reduced Lateral Confinement and Its Effect on Stability in Patterned Strong Polyelectrolyte Brushes. <i>Langmuir</i> , 2017, 33, 3296-3303.	3.5	16
47	Cell microarrays from surface-attached peptide-polymer monolayers. <i>Physica Status Solidi (A) Applications and Materials Science</i> , 2009, 206, 468-473.	1.8	15
48	Tailormade Microfluidic Devices Through Photochemical Surface Modification. <i>Macromolecular Chemistry and Physics</i> , 2010, 211, 195-203.	2.2	15
49	Step-and-Repeat Assembly of Molecularly Controlled Ultrathin Polyaramide Layers. <i>Macromolecules</i> , 2010, 43, 9056-9062.	4.8	14
50	PnBA/PDMAA-Based Iron-Loaded Micropillars Allow for Discrete Cell Adhesion and Analysis of Actuation-Related Molecular Responses. <i>Advanced Materials Interfaces</i> , 2020, 7, 1901806.	3.7	14
51	Swellable Surface-Attached Polymer Microlenses with Tunable Focal Length. <i>Advanced Materials</i> , 2007, 19, 456-460.	21.0	13
52	Binding of Functionalized Polymers to Surface-Attached Polymer Networks Containing Reactive Groups. <i>Macromolecules</i> , 2014, 47, 2695-2702.	4.8	13
53	Morphology of Nanostructured Polymer Brushes Dependent on Production and Treatment. <i>Macromolecules</i> , 2017, 50, 4715-4724.	4.8	12
54	Surface-attached polymer networks through carbene intermediates generated from $\alpha$ -diazo esters. <i>Journal of Polymer Science Part A</i> , 2017, 55, 3276-3285.	2.3	12

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55	Colorimetric sensing properties of catechol-functional polymerized vesicles in aqueous solution and at solid surfaces. <i>Colloids and Surfaces A: Physicochemical and Engineering Aspects</i> , 2014, 441, 242-254.	4.7	11
56	Dynamics of end-grafted polystyrene brushes in theta solvents. <i>Journal of Polymer Science, Part B: Polymer Physics</i> , 2006, 44, 3590-3597.	2.1	10
57	Self-Affine Surfaces of Polymer Brushes. <i>Macromolecules</i> , 2007, 40, 6361-6369.	4.8	10
58	A Novel Reactive Lamination Process for the Generation of Functional Multilayer Foils for Optical Applications. <i>Procedia Technology</i> , 2014, 15, 147-155.	1.1	10
59	A Planar low-cost full-polymer Optical Humidity Sensor. <i>Procedia Technology</i> , 2016, 26, 530-536.	1.1	10
60	Polymer thin film properties as a function of temperature and pressure. <i>Macromolecular Symposia</i> , 1999, 145, 95-102.	0.7	9
61	Glass Transition in Ultrathin Polymer Films. <i>ACS Symposium Series</i> , 1998, , 233-249.	0.5	7
62	Entropic death of nonpatterned and nanopatterned polyelectrolyte brushes. <i>Journal of Polymer Science Part A</i> , 2019, 57, 1283-1295.	2.3	7
63	Kinetics of Photocrosslinking and Surface Attachment of Thick Polymer Films. <i>Macromolecules</i> , 2021, 54, 6238-6246.	4.8	7
64	Preparation of hydrophilic polymeric nanolayers attached to solid surfaces via photochemical and ATRP techniques. <i>Journal of Polymer Research</i> , 2013, 20, 1.	2.4	6
65	Prevention of Ocular Tenon Adhesion to Sclera by a PDMAA Polymer to Improve Results after Glaucoma Surgery. <i>Macromolecular Rapid Communications</i> , 2020, 41, 1900352.	3.9	6
66	On the swelling behavior of linear end-grafted polystyrene in methanol/toluene mixtures. <i>Colloid and Polymer Science</i> , 2004, 282, 939-945.	2.1	5
67	Surface fluctuations of polymer brushes probed by diffuse X-ray scattering. <i>Polymer</i> , 2005, 46, 2331-2337.	3.8	5
68	Fabrication and implantation of hydrogel coated, flexible polyimide electrodes. , 2015, , .		5
69	Confining acrylate-benzophenone copolymers into adhesive micropads by photochemical crosslinking. <i>Journal of Photochemistry and Photobiology A: Chemistry</i> , 2019, 377, 80-91.	3.9	5
70	Biomimetic Actuators: Toward a New Generation of Smart Biomimetic Actuators for Architecture (Adv. Mater. 19/2018). <i>Advanced Materials</i> , 2018, 30, 1870135.	21.0	4
71	Fluorescent sensibility of microarrays through functionalized adhesive polydiacetylene vesicles. <i>Sensors and Actuators A: Physical</i> , 2014, 214, 45-57.	4.1	3
72	Dewetting and photochemical crosslinking of adhesive pads onto lithographically patterned surfaces. <i>Journal of Applied Polymer Science</i> , 2019, 136, 47321.	2.6	3

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73	Surface-attached Polymer Networks. Materials Research Society Symposia Proceedings, 2000, 629, 1.	0.1	2
74	Polyelectrolyte Networks Based on Poly(Para-phenylene)s: Synthesis, Preparation of Thin Films, and Swelling Behavior. Soft Materials, 2002, 1, 33-52.	1.7	1
75	Polymer hybrid materials for planar optronic systems. Proceedings of SPIE, 2015, , .	0.8	1
76	Hemocompatible Surfaces Through Surface-attached Hydrogel Coatings and their Functional Stability in a Medical Environment. ASAIO Journal, 2021, Publish Ahead of Print, .	1.6	1
77	Ultrathin polymer monolayers for promotion of cell growth on bioprosthetic materials – evolution of a new concept to improve long term performance of biologic heart valves. Bio-Medical Materials and Engineering, 2004, 14, 419-25.	0.6	1
78	Polymer characterisation on langasite delay lines. , 2009, , .		0
79	Measurements of periodically perturbed dewetting force fields and their consequences on the symmetry of the resulting patterns. Scientific Reports, 2021, 11, 13149.	3.3	0