

Ulrich Jonas

List of Publications by Year in descending order

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124
papers

6,510
citations

57758

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131
all docs

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docs citations

131
times ranked

8015
citing authors

#	ARTICLE	IF	CITATIONS
1	Advances in Colloidal Assembly: The Design of Structure and Hierarchy in Two and Three Dimensions. <i>Chemical Reviews</i> , 2015, 115, 6265-6311.	47.7	630
2	Observation and tuning of hypersonic bandgaps in colloidal crystals. <i>Nature Materials</i> , 2006, 5, 830-836.	27.5	252
3	Direct Conversion of EPR Dipolar Time Evolution Data to Distance Distributions. <i>Journal of Magnetic Resonance</i> , 2002, 155, 72-82.	2.1	221
4	Antibacterial Surface Coatings from Zinc Oxide Nanoparticles Embedded in Poly(N-isopropylacrylamide) Hydrogel Surface Layers. <i>Advanced Functional Materials</i> , 2012, 22, 2376-2386.	14.9	203
5	Reversible Color Switching and Unusual Solution Polymerization of Hydrazide-Modified Diacetylene Lipids. <i>Journal of the American Chemical Society</i> , 1999, 121, 4580-4588.	13.7	191
6	Synthesis of a Fullerene Derivative of Benzo[18]crown-6 by Diels-Alder Reaction: Complexation Ability, Amphiphilic Properties, and X-Ray Crystal Structure of a Dimethoxy-1,9-(methano[1,2]benzenomethano)fullerene[60] Benzene Clathrate. <i>Helvetica Chimica Acta</i> , 1993, 76, 2445-2453.	1.6	181
7	Fabrication of Large Area, Transferable Colloidal Monolayers Utilizing Self-Assembly at the Air/Water Interface. <i>Macromolecular Chemistry and Physics</i> , 2009, 210, 230-241.	2.2	175
8	Wafer-Scale Fabrication of Ordered Binary Colloidal Monolayers with Adjustable Stoichiometries. <i>Advanced Functional Materials</i> , 2011, 21, 3064-3073.	14.9	154
9	Parameters Influencing the Templated Growth of Colloidal Crystals on Chemically Patterned Surfaces. <i>Langmuir</i> , 2004, 20, 9114-9123.	3.5	142
10	Thin Hydrogel Films for Optical Biosensor Applications. <i>Membranes</i> , 2012, 2, 40-69.	3.0	141
11	Responsive Thin Hydrogel Layers from Photo-Cross-Linkable Poly(N-isopropylacrylamide) Terpolymers. <i>Langmuir</i> , 2007, 23, 2231-2238.	3.5	137
12	Photopolymerization of Diacetylene Lipid Bilayers and Its Application to the Construction of Micropatterned Biomimetic Membranes. <i>Langmuir</i> , 2002, 18, 4082-4089.	3.5	122
13	Simultaneous Occurrence of Structure-Directed and Particle-Resonance-Induced Phononic Gaps in Colloidal Films. <i>Physical Review Letters</i> , 2008, 100, 194301.	7.8	117
14	Prostate Specific Antigen Biosensor Based on Long Range Surface Plasmon-Enhanced Fluorescence Spectroscopy and Dextran Hydrogel Binding Matrix. <i>Analytical Chemistry</i> , 2009, 81, 9625-9632.	6.5	116
15	Colloidal assemblies on patterned silane layers. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2002, 99, 5034-5039.	7.1	111
16	Preparation of Multilayered Trimodal Colloid Crystals and Binary Inverse Opals. <i>Journal of the American Chemical Society</i> , 2006, 128, 15606-15607.	13.7	111
17	Site-Selective Growth of Colloidal Crystals with Photonic Properties on Chemically Patterned Surfaces. <i>Advanced Materials</i> , 2003, 15, 1025-1028.	21.0	107
18	Surface Modification with Orthogonal Photosensitive Silanes for Sequential Chemical Lithography and Site-Selective Particle Deposition. <i>Angewandte Chemie - International Edition</i> , 2005, 44, 4707-4712.	13.8	106

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19	Synthesis of a Fullerene[60] Cryptate and Systematic Langmuir-Blodgett and Thin-Film Investigations of Amphiphilic Fullerene Derivatives. <i>Chemistry - A European Journal</i> , 1995, 1, 243-251.	3.3	94
20	C60 and C70 in a Basket?â€“ Investigations of Mono- and Multilayers from Azacrown Compounds and Fullerenes. <i>Angewandte Chemie International Edition in English</i> , 1992, 31, 1599-1602.	4.4	91
21	Confined Diffusion in Periodic Porous Nanostructures. <i>ACS Nano</i> , 2011, 5, 4607-4616.	14.6	88
22	Biosensor based on hydrogel optical waveguide spectroscopy. <i>Biosensors and Bioelectronics</i> , 2010, 25, 1663-1668.	10.1	86
23	EPR Spectroscopy Reveals Nanoinhomogeneities in the Structure and Reactivity of Thermo-responsive Hydrogels. <i>Small</i> , 2008, 4, 1485-1493.	10.0	78
24	Active Control of SPR by Thermo-responsive Hydrogels for Biosensor Applications. <i>Journal of Physical Chemistry C</i> , 2013, 117, 11705-11712.	3.1	78
25	The forces at work in colloidal self-assembly: a review on fundamental interactions between colloidal particles. <i>Asia-Pacific Journal of Chemical Engineering</i> , 2008, 3, 255-268.	1.5	77
26	Structural and optical characterization of 3D binary colloidal crystal and inverse opal films prepared by direct co-deposition. <i>Journal of Materials Chemistry</i> , 2008, 18, 981.	6.7	77
27	Bloch surface wave-enhanced fluorescence biosensor. <i>Biosensors and Bioelectronics</i> , 2013, 43, 108-114.	10.1	77
28	Introduction of [2]Catenanes into Langmuir Films and Langmuir-Blodgett Multilayers. A Possible Strategy for Molecular Information Storage Materials. <i>Langmuir</i> , 2000, 16, 1924-1930.	3.5	76
29	The Role of Intermolecular and Molecule-Substrate Interactions in the Stability of Alkanethiol Nonsaturated Phases on Au(111). <i>Journal of the American Chemical Society</i> , 2004, 126, 385-395.	13.7	72
30	Î²-Carrageenan Enhances the Biomineralization and Osteogenic Differentiation of Electrospun Polyhydroxybutyrate and Polyhydroxybutyrate Valerate Fibers. <i>Biomacromolecules</i> , 2017, 18, 1563-1573.	5.4	68
31	Single-Photon and Two-Photon Induced Photocleavage for Monolayers of an Alkyltriethoxysilane with a Photoprotected Carboxylic Ester. <i>Advanced Materials</i> , 2008, 20, 4563-4567.	21.0	67
32	Dynamics of swollen gel layers anchored to solid surfaces. <i>Soft Matter</i> , 2008, 4, 1443.	2.7	66
33	Inverse Opals of Polyaniline and Its Copolymers Prepared by Electrochemical Techniques. <i>Chemistry of Materials</i> , 2005, 17, 5726-5730.	6.7	65
34	Automated Preparation Method for Colloidal Crystal Arrays of Monodisperse and Binary Colloid Mixtures by Contact Printing with a Pintool Plotter. <i>Langmuir</i> , 2007, 23, 3478-3484.	3.5	60
35	Parallel Preparation of Densely Packed Arrays of 150-nm Gold-Nanocrescent Resonators in Three Dimensions. <i>Small</i> , 2009, 5, 2105-2110.	10.0	59
36	Antimicrobial Photodynamic Therapy: Latest Developments with a Focus on Combinatory Strategies. <i>Pharmaceutics</i> , 2021, 13, 1995.	4.5	59

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37	Adsorption of polyacrylic acid on self-assembled monolayers investigated by single-molecule force spectroscopy. <i>New Journal of Physics</i> , 2004, 6, 9-9.	2.9	56
38	The "Music" of Core-Shell Spheres and Hollow Capsules: Influence of the Architecture on the Mechanical Properties at the Nanoscale. <i>Nano Letters</i> , 2008, 8, 3194-3199.	9.1	54
39	Tailoring of Poly(ether ether ketone) Surface Properties via Surface-Initiated Atom Transfer Radical Polymerization. <i>Langmuir</i> , 2009, 25, 6214-6220.	3.5	54
40	Ruthenium(II) Polypyridyl Complexes as Photosensitizers for Antibacterial Photodynamic Therapy: A Structure-Activity Study on Clinical Bacterial Strains. <i>ChemMedChem</i> , 2018, 13, 2229-2239.	3.2	54
41	Polymer Functionalized AFM tips for Long-Term Measurements in Single-Molecule Force Spectroscopy. <i>ChemPhysChem</i> , 2004, 5, 388-393.	2.1	53
42	Biosensor based on hydrogel optical waveguide spectroscopy for the detection of 17 β -estradiol. <i>Talanta</i> , 2013, 104, 149-154.	5.5	53
43	Probing mobility and structural inhomogeneities in grafted hydrogel films by fluorescence correlation spectroscopy. <i>Soft Matter</i> , 2011, 7, 7042.	2.7	52
44	Complex Tracer Diffusion Dynamics in Polymer Solutions. <i>Physical Review Letters</i> , 2013, 111, 088301.	7.8	50
45	Plasmonic nanomaterials with responsive polymer hydrogels for sensing and actuation. <i>Chemical Society Reviews</i> , 2022, 51, 3926-3963.	38.1	48
46	Tetraethynylethene molecular scaffolding: Nonlinear optical, redox, and amphiphilic properties of donor functionalized polytriacyetylene and expanded radialenes. <i>Advanced Materials</i> , 1997, 9, 339-343.	21.0	45
47	The swelling behaviour of thermoresponsive hydrogel/silica nanoparticle composites. <i>Journal of Materials Chemistry</i> , 2010, 20, 4827.	6.7	44
48	From Well-Defined Carbon-Rich Precursors to Monodisperse Carbon Particles with Hierarchic Structures. <i>Advanced Materials</i> , 2007, 19, 1849-1853.	21.0	43
49	Colloidal systems: a promising material class for tailoring sound propagation at high frequencies. <i>Journal of Physics Condensed Matter</i> , 2008, 20, 404203.	1.8	40
50	Optical Waveguide Spectroscopy for the Investigation of Protein-Functionalized Hydrogel Films. <i>Macromolecular Rapid Communications</i> , 2009, 30, 872-877.	3.9	40
51	Atomic Force Spectroscopy of Thermoresponsive Photo-Cross-Linked Hydrogel Films. <i>Langmuir</i> , 2010, 26, 7262-7269.	3.5	40
52	Hydrogel-supported protein-tethered bilayer lipid membranes: a new approach toward polymer-supported lipid membranes. <i>Soft Matter</i> , 2011, 7, 237-246.	2.7	38
53	Synthesis and pH-Selective Adsorption of Latex Particles onto Photolithographically Patterned Silane Layers. <i>Journal of Colloid and Interface Science</i> , 2002, 252, 331-338.	9.4	37
54	Tracer Diffusion in Silica Inverse Opals. <i>Langmuir</i> , 2010, 26, 10141-10146.	3.5	37

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55	Electron beam induced fragmentation of fullerene derivatives. <i>Chemical Physics Letters</i> , 1998, 289, 586-590.	2.6	34
56	Optical Characterization of Co ϵ Nonsolvency Effects in Thin Responsive PNIPAA ϵ Based Gel Layers Exposed to Ethanol/Water Mixtures. <i>Macromolecular Chemistry and Physics</i> , 2010, 211, 1018-1025.	2.2	34
57	Analysis of Optical Gradient Profiles during Temperature- and Salt-Dependent Swelling of Thin Responsive Hydrogel Films. <i>Langmuir</i> , 2010, 26, 12253-12259.	3.5	34
58	The spectrum of vibration modes in soft opals. <i>Journal of Chemical Physics</i> , 2005, 123, 121104.	3.0	33
59	Complex Ordering in Thin Films of Di- and Trifunctionalized Hexaalkoxytriphenylene Derivatives. <i>Journal of the American Chemical Society</i> , 1997, 119, 4740-4748.	13.7	32
60	Water Induced Dewetting of Ultrathin Polystyrene Films on Hydrophilic Surfaces. <i>Langmuir</i> , 2002, 18, 8056-8061.	3.5	31
61	C ₆₀ and C ₇₀ im K \ddot{a} rbchen? ϵ Untersuchungen an Mono ϵ und Multischichten aus Azakronenverbindungen und Fullerenen. <i>Angewandte Chemie</i> , 1992, 104, 1683-1686.	2.0	30
62	Surface Initiated Polymerization on Pulsed Plasma Deposited Polyallylamine: A Polymer Substrate ϵ Independent Strategy to Soft Surfaces with Polymer Brushes. <i>Macromolecular Rapid Communications</i> , 2011, 32, 1735-1740.	3.9	29
63	Magnetic Composite Thin Films of Fe ₃ O ₄ Nanoparticles and Photocrosslinked Dextran Hydrogels. <i>Journal of Magnetism and Magnetic Materials</i> , 2012, 324, 1488-1497.	2.3	29
64	Effect of the Molecular Structure on the Hierarchical Self-Assembly of Semifluorinated Alkanes at the Air/Water Interface. <i>Langmuir</i> , 2011, 27, 8776-8786.	3.5	28
65	The effect of polar, nonpolar, and electrostatic interactions and wetting behavior on the particle assembly at patterned surfaces. <i>Journal of Supramolecular Chemistry</i> , 2002, 2, 255-270.	0.4	25
66	Addressing the interface in polymer-clay nanocomposites by electron paramagnetic resonance spectroscopy on surfactant probes. <i>Polymer Engineering and Science</i> , 2004, 44, 1112-1121.	3.1	25
67	Polycyanurate Thermoset Networks with High Thermal, Mechanical, and Hydrolytic Stability Based on Liquid Multifunctional Cyanate Ester Monomers with Bisphenol A and AF Units. <i>Macromolecular Chemistry and Physics</i> , 2008, 209, 1673-1685.	2.2	25
68	Porous Networks Through Colloidal Templates. <i>Topics in Current Chemistry</i> , 2008, 287, 135-180.	4.0	25
69	Tunable Plasmonic Nanohole Arrays Actuated by a Thermoresponsive Hydrogel Cushion. <i>Journal of Physical Chemistry C</i> , 2016, 120, 561-568.	3.1	25
70	Diffusion and Permeation of Labeled IgG in Grafted Hydrogels. <i>Macromolecules</i> , 2017, 50, 4770-4779.	4.8	25
71	Enhanced Differentiation of Human Preosteoblasts on Electrospun Blend Fiber Mats of Polydioxanone and Anionic Sulfated Polysaccharides. <i>ACS Biomaterials Science and Engineering</i> , 2017, 3, 3447-3458.	5.2	25
72	Laterally Patterned Ultraflat Surfaces. <i>Small</i> , 2009, 5, 821-825.	10.0	24

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73	Hierarchically Structured, Double-Periodic Inverse Composite Opals. <i>Advanced Functional Materials</i> , 2013, 23, 5381-5389.	14.9	23
74	Actuated plasmonic nanohole arrays for sensing and optical spectroscopy applications. <i>Nanoscale</i> , 2020, 12, 9756-9768.	5.6	23
75	Photocrosslinkable dextran hydrogel films as substrates for osteoblast and endothelial cell growth. <i>Journal of Materials Chemistry B</i> , 2012, 22, 19590.	6.7	22
76	Shell Architecture Strongly Influences the Glass Transition, Surface Mobility, and Elasticity of Polymer Core-Shell Nanoparticles. <i>Macromolecules</i> , 2019, 52, 5399-5406.	4.8	22
77	Photocrosslinkable polysaccharide hydrogel composites based on dextran or pullulan-amylose blends with cytokines for a human co-culture model of human osteoblasts and endothelial cells. <i>Journal of Materials Chemistry B</i> , 2016, 4, 6552-6564.	5.8	20
78	UV-Laser Interference Lithography for Local Functionalization of Plasmonic Nanostructures with Responsive Hydrogel. <i>Journal of Physical Chemistry C</i> , 2020, 124, 3297-3305.	3.1	20
79	A new ultralow fouling surface for the analysis of human plasma samples with surface plasmon resonance. <i>Talanta</i> , 2021, 221, 121483.	5.5	20
80	Improved Multicellular Response, Biomimetic Mineralization, Angiogenesis, and Reduced Foreign Body Response of Modified Polydioxanone Scaffolds for Skeletal Tissue Regeneration. <i>ACS Applied Materials & Interfaces</i> , 2019, 11, 5834-5850.	8.0	19
81	Self assembling cluster crystals from DNA based dendritic nanostructures. <i>Nature Communications</i> , 2021, 12, 7167.	12.8	19
82	Influence of Molecular Arrangement in Self-Assembled Monolayers on Adhesion Forces Measured by Chemical Force Microscopy. <i>ChemPhysChem</i> , 2003, 4, 1107-1111.	2.1	18
83	Molecularly controlled functional architectures. <i>Materials Today</i> , 2010, 13, 46-55.	14.2	18
84	Simultaneous Measurement of Mechanical and Surface Properties in Thermoresponsive, Anchored Hydrogel Films. <i>Langmuir</i> , 2012, 28, 12871-12878.	3.5	18
85	Actively Tunable Collective Localized Surface Plasmons by Responsive Hydrogel Membrane. <i>Advanced Optical Materials</i> , 2019, 7, 1900342.	7.3	18
86	Polymer-Tethered Bimolecular Lipid Membranes. <i>Advances in Polymer Science</i> , 2009, , 87-111.	0.8	17
87	Temperature-Controlled Diffusion in PNIPAM-Modified Silica Inverse Opals. <i>ACS Macro Letters</i> , 2016, 5, 190-194.	4.8	17
88	Tuning the Structure and Rheology of Polystyrene Particles at the Air-Water Interface by Varying the pH. <i>Langmuir</i> , 2016, 32, 6956-6966.	3.5	16
89	Hydrogel-Terminated Photonic Crystal for Label-Free Detection of Angiopoietin-1. <i>Journal of Lightwave Technology</i> , 2016, 34, 3641-3645.	4.6	16
90	Viscoelasticity of semifluorinated alkanes at the air/water interface. <i>Soft Matter</i> , 2011, 7, 7737.	2.7	15

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91	Photoswitching the mechanical properties in Langmuir layers of semifluorinated alkyl-azobenzenes at the air-water interface. <i>Physical Chemistry Chemical Physics</i> , 2015, 17, 28844-28852.	2.8	15
92	Ultrathin Shell Layers Dramatically Influence Polymer Nanoparticle Surface Mobility. <i>Macromolecules</i> , 2018, 51, 8522-8529.	4.8	15
93	Extended mesoionic systems: synthesis and characterization of monocyclic, polycyclic and macrocyclic pyrimidinium-olate derivatives and their photochemical behavior. <i>Tetrahedron</i> , 2004, 60, 10011-10018.	1.9	14
94	Vibrational Eigenfrequencies and Mechanical Properties of Mesoscopic Copolymer Latex Particles. <i>Macromolecules</i> , 2010, 43, 3422-3428.	4.8	14
95	Responsive Hydrogel Binding Matrix for Dual Signal Amplification in Fluorescence Affinity Biosensors and Peptide Microarrays. <i>ACS Applied Materials & Interfaces</i> , 2021, 13, 27645-27655.	8.0	14
96	Semifluorinated Alkanes at the Air-water Interface: Tailoring Structure and Rheology at the Molecular Scale. <i>Langmuir</i> , 2016, 32, 3139-3151.	3.5	13
97	From Fluidic Self-Assembly to Hierarchical Structures Superhydrophobic Flexible Interfaces. <i>Angewandte Chemie - International Edition</i> , 2010, 49, 4542-4543.	13.8	12
98	Frequency Response of Polymer Films Made from a Precursor Colloidal Monolayer on a Nanomechanical Cantilever. <i>Macromolecules</i> , 2012, 45, 862-871.	4.8	12
99	Photocrosslinked Dextran-Based Hydrogels as Carrier System for the Cells and Cytokines Induce Bone Regeneration in Critical Size Defects in Mice. <i>Gels</i> , 2018, 4, 63.	4.5	12
100	Molecularly Imprinted Polymer Waveguides for Direct Optical Detection of Low-Molecular-Weight Analytes. <i>Macromolecular Chemistry and Physics</i> , 2014, 215, 2295-2304.	2.2	11
101	Free-standing hydrogel-particle composite membrane with dynamically controlled permeability. <i>Biointerphases</i> , 2017, 12, 051002.	1.6	11
102	Preparation and characterization of fibres from a thermotropic liquid crystal polyester with non-coplanar biphenylene units. <i>Liquid Crystals</i> , 1993, 14, 959-970.	2.2	10
103	Interfacial Fourier transform shear rheometry of complex fluid interfaces. <i>Rheologica Acta</i> , 2019, 58, 29-45.	2.4	10
104	Polyolefin-Supported Hydrogels for Selective Cleaning Treatments of Paintings. <i>Gels</i> , 2020, 6, 1.	4.5	10
105	Template-free structuring of colloidal hetero-monolayers by inkjet printing and particle floating. <i>Soft Matter</i> , 2010, 6, 2403.	2.7	9
106	Optical Waveguide-Enhanced Diffraction for Observation of Responsive Hydrogel Nanostructures. <i>Macromolecular Chemistry and Physics</i> , 2017, 218, 1600400.	2.2	9
107	Reversibly tunable plasmonic bandgap by responsive hydrogel grating. <i>Optics Express</i> , 2016, 24, 2457.	3.4	8
108	Thiol-Substituted Poly(2-oxazoline)s with Photolabile Protecting Groups Tandem Network Formation by Light. <i>Polymers</i> , 2020, 12, 1767.	4.5	8

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109	Biosensor platform based on surface plasmon-enhanced fluorescence spectroscopy and responsive hydrogel binding matrix. Proceedings of SPIE, 2009, , .	0.8	7
110	DNA Self-Assembly Mediated by Programmable Soft-Patchy Interactions. ACS Nano, 2020, 14, 13524-13535.	14.6	6
111	Thermal response and thermochromism of methyl red-based copolymer systems " coupled responsiveness in critical solution behaviour and optical absorption properties. Polymer Chemistry, 2022, 13, 1186-1214.	3.9	5
112	Rapid Actuation of Thermo-Responsive Polymer Networks: Investigation of the Transition Kinetics. Journal of Physical Chemistry B, 2022, 126, 3170-3179.	2.6	5
113	Biopolymers for Biosensors: Polypeptide Nanotubes for Optical Biosensing. ACS Symposium Series, 2008, , 371-390.	0.5	4
114	Enzyme-assisted synthesis and structural characterization of pure benzodiazepine glucuronide epimers. European Journal of Pharmaceutical Sciences, 2010, 39, 233-240.	4.0	4
115	Cyanate Ester Resins as Thermally Stable Adhesives for PEEK. , 0, , 145-164.		3
116	Glossar zu Begriffen mit Bezug zu Kinetik, Thermodynamik und Mechanismen von Polymerisationen. Angewandte Chemie, 2009, 121, 9725-9738.	2.0	1
117	Colloidal Structures on Patterned Surfaces. , 0, , 970-982.		1
118	Thermoresponsive polymers as macromolecular coordination ligands: complexation-dependence of thermally induced aggregation in aqueous solution. Polymer Chemistry, 2021, 12, 5598-5612.	3.9	1
119	Binary Colloidal Monolayers: Wafer-scale Fabrication of Ordered Binary Colloidal Monolayers with Adjustable Stoichiometries (Adv. Funct. Mater. 16/2011). Advanced Functional Materials, 2011, 21, .	14.9	0
120	Plasmonic biosensor schemes with thermo-responsive hydrogel binding matrix. , 2011, , .		0
121	Surface-Attached Polymeric Hydrogel Films. , 2013, , 277-359.		0
122	Plasmonically enhanced fluorescence biosensors actuated by responsive hydrogels. , 2018, , .		0
123	Selective Surface Deposition of Colloidal Particles. , 0, , 772-784.		0
124	Modification of Surfaces by Photosensitive Silanes. , 0, , 207-220.		0