Johannes Heitz

List of Publications by Year
in descending order

131	3,642	109264	168321
papers	citations	35 h-index	53 g-index

135	135	135	2891
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	An Optimised Surface Structure for Passive, Unidirectional Fluid Transport Bioinspired by True Bugs. Journal of Bionic Engineering, 2021, 18, 375-386.	2.7	4
2	An Improved Transwell Design for Microelectrode Ion-Flux Measurements. Micromachines, 2021, 12, 273.	1.4	4
3	Femtosecond Laser-Processing of Pre-Anodized Ti-Based Bone Implants for Cell-Repellent Functionalization. Nanomaterials, 2021, 11, 1342.	1.9	9
4	Spatial Period of Laser-Induced Surface Nanoripples on PET Determines Escherichia coli Repellence. Nanomaterials, 2021, 11, 3000.	1.9	17
5	Ambient Climate Influences Anti-Adhesion between Biomimetic Structured Foil and Nanofibers. Nanomaterials, 2021, 11, 3222.	1.9	6
6	Bio-inspired microneedle design for efficient drug/vaccine coating. Biomedical Microdevices, 2020, 22, 8.	1.4	54
7	Laser-Induced Periodic Surface Structures (LIPSS) for Biomedical and Sensing Applications. , 2020, , .		4
8	Laser engineering of biomimetic surfaces. Materials Science and Engineering Reports, 2020, 141, 100562.	14.8	180
9	Impact of Femtosecond Laser Treatment Accompanied with Anodization of Titanium Alloy on Fibroblast Cell Growth. Physica Status Solidi (A) Applications and Materials Science, 2020, 217, 1900838.	0.8	10
10	Biomimetic Combs as Antiadhesive Tools to Manipulate Nanofibers. ACS Applied Nano Materials, 2020, 3, 3395-3401.	2.4	14
11	Repellent rings at titanium cylinders against overgrowth by fibroblasts. Advanced Optical Technologies, 2020, 9, 113-120.	0.9	8
12	Localized-Plasmon Voltammetry to Detect pH Dependent Gold Oxidation. Journal of Physical Chemistry C, 2018, 122, 4565-4571.	1.5	12
13	The external scent efferent system of selected European true bugs (Heteroptera): a biomimetic inspiration for passive, unidirectional fluid transport. Journal of the Royal Society Interface, 2018, 15, 20170975.	1.5	18
14	Three-Dimensional Photonic Structures Fabricated by Two-Photon Polymerization for Microfluidics and Microneedles. , 2018, , .		2
15	Bioinspired polymer microstructures for directional transport of oily liquids. Royal Society Open Science, 2017, 4, 160849.	1.1	23
16	Laser-induced optical breakdown spectroscopy of polymer materials based on evaluation of molecular emission bands. Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy, 2017, 174, 331-338.	2.0	32
17	Adaptive camouflage: What can be learned from the wetting behaviour of the tropical flatbugsDysodius lunatusandD. magnus. Biology Open, 2017, 6, 1209-1218.	0.6	12
18	Femtosecond laser-induced microstructures on Ti substrates for reduced cell adhesion. Applied Physics A: Materials Science and Processing, 2017, 123, 1.	1.1	37

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19	Boneâ€forming cells with pronounced spread into the third dimension in polymer scaffolds fabricated by twoâ€photon polymerization. Journal of Biomedical Materials Research - Part A, 2017, 105, 891-899.	2.1	26
20	Monte Carlo standardless approach for laser induced breakdown spectroscopy based on massive parallel graphic processing unit computing. Spectrochimica Acta, Part B: Atomic Spectroscopy, 2016, 125, 97-102.	1.5	19
21	Three-dimensional photonic structures on transparent substrates fabricated by two-photon polymerization for use as cell substrates and for wetting experiments. , 2016, , .		1
22	Effect of VUV-excimer lamp treatment on cellulose fiber. International Journal of Polymer Analysis and Characterization, 2016, 21, 337-347.	0.9	6
23	Calibration-free analysis of steel slag by laser-induced breakdown spectroscopy with combined UV and VIS spectra. Spectrochimica Acta, Part B: Atomic Spectroscopy, 2015, 106, 67-74.	1.5	32
24	Comparison of KrF and ArF excimer laser treatment of biopolymer surface. Applied Surface Science, 2015, 339, 144-150.	3.1	28
25	VUV treatment combined with mechanical strain of stretchable polymer foils resulting in cell alignment. Applied Surface Science, 2015, 325, 105-111.	3.1	11
26	Laser-induced periodic surface structures on polymers for formation of gold nanowires and activation of human cells. Applied Physics A: Materials Science and Processing, 2014, 117, 295-300.	1.1	41
27	In-line measurements of chlorine containing polymers in an industrial waste sorting plant by laser-induced breakdown spectroscopy. Applied Surface Science, 2014, 302, 280-285.	3.1	38
28	Sensitive detection of chlorine in iron oxide by single pulse and dual pulse laser-induced breakdown spectroscopy. Spectrochimica Acta, Part B: Atomic Spectroscopy, 2014, 101, 183-190.	1.5	25
29	Laser-induced periodic structures on polymers for the formation of gold or silver nanowires showing pronounced plasmon resonances. , 2014, , .		0
30	Influence of sample temperature on the expansion dynamics and the optical emission of laser-induced plasma. Spectrochimica Acta, Part B: Atomic Spectroscopy, 2013, 87, 36-42.	1.5	56
31	Silver nano-structures prepared by oriented evaporation on laser-patterned poly(methyl) Tj ETQq1 1 0.784314 rgBT /Overlock 10 Tf 50 2	1.7	11
32	Element analysis of complex materials by calibration-free laser-induced breakdown spectroscopy. Applied Physics A: Materials Science and Processing, 2013, 112, 105-111.	1.1	45
33	Preparation and characterization of fully separated gold nanowire arrays. Applied Surface Science, 2013, 264, 443-447.	3.1	24
34	Enhanced Ca²⁺Entry and Tyrosine Phosphorylation Mediate Nanostructure-Induced Endothelial Proliferation. Journal of Nanomaterials, 2013, 2013, 1-10.	1.5	10
35	Laser-induced periodic surface structures (LIPSS) on polymer surfaces. , 2012, , .		8
36	Nanopatterned polymer substrates promote endothelial proliferation by initiation of Î²-catenin transcriptional signaling. Acta Biomaterialia, 2012, 8, 2953-2962.	4.1	35

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37	Comparison of gated and non-gated detectors for double-pulse laser induced plasma analysis of trace elements in iron oxide. Spectrochimica Acta, Part B: Atomic Spectroscopy, 2012, 74-75, 51-56.	1.5	21
38	Surface properties of polymers treated with F₂ laser. Surface and Interface Analysis, 2012, 44, 296-300.	0.8	22
39	Structural, electrical and optical studies of gold nanostructures formed by Ar plasma-assisted sputtering. Nuclear Instruments & Methods in Physics Research B, 2012, 272, 193-197.	0.6	15
40	Laser microstructuring of photomodified fluorinated ethylene propylene surface for confined growth of Chinese hamster ovary cells and single cell isolation. Journal of Biomedical Materials Research - Part B Applied Biomaterials, 2012, 100B, 170-176.	1.6	5
41	Double-pulse laser-induced breakdown spectroscopy for trace element analysis in sintered iron oxide ceramics. Applied Physics A: Materials Science and Processing, 2012, 106, 15-23.	1.1	19
42	Laser-induced micro- and nanostructures at polymer surfaces for applications in cell biology. , 2011, , .		1
43	UV Laser Patterning of Various Polymers for Biocompatibility Control of Chondrocyte Adhesion and Differentiation Grade. Biophysical Journal, 2011, 100, 624a.	0.2	0
44	Self-organized gold nanostructures on laser patterned PET. Surface and Coatings Technology, 2011, 206, 517-521.	2.2	22
45	Quantitative determination of element concentrations in industrial oxide materials by laser-induced breakdown spectroscopy. Analytical and Bioanalytical Chemistry, 2011, 400, 3367-3375.	1.9	30
46	Combination of RF-plasma jet and Laser-induced plasma for breakdown spectroscopy analysis of complex materials. Applied Surface Science, 2011, 257, 5452-5455.	3.1	21
47	Angle dependent laser nanopatterning of poly(ethylene terephthalate) surfaces. Applied Surface Science, 2011, 257, 6021-6025.	3.1	44
48	Dynamics of Spreading and Alignment of Cells CulturedIn Vitroon a Grooved Polymer Surface. Journal of Nanomaterials, 2011, 2011, 1-10.	1.5	25
49	Laser Micro-Patterning by Means of Optical Fibers with Micro-grinded Lens End Faces. Journal of Laser Micro Nanoengineering, 2011, 6, 180-184.	0.4	1
50	LA-ICP-MS analysis of waste polymer materials. Analytical and Bioanalytical Chemistry, 2010, 398, 415-424.	1.9	25
51	EUV micropatterning for biocompatibility control of PET. Applied Physics A: Materials Science and Processing, 2010, 100, 511-516.	1.1	34
52	Gold nano-wires and nano-layers at laser-induced nano-ripples on PET. Applied Surface Science, 2010, 256, 2205-2209.	3.1	55
53	Calibration free laser-induced breakdown spectroscopy of oxide materials. Spectrochimica Acta, Part B: Atomic Spectroscopy, 2010, 65, 671-679.	1.5	124
54	Influence of pulse-to-pulse delay for 532nm double-pulse laser-induced breakdown spectroscopy of technical polymers. Spectrochimica Acta, Part B: Atomic Spectroscopy, 2010, 65, 935-942.	1.5	44

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55	Dynamics of the Alignment of Mammalian Cells on a Nanoâ€Structured Polymer Surface. Macromolecular Symposia, 2010, 296, 272-277.	0.4	10
56	Photonic nanostructures for potential applications in cell biology. , 2010, , .		0
57	Detection of heavy metals in waste polymers by laser-induced breakdown spectroscopy: a comparison of UV and IR lasers as ablation source. Proceedings of SPIE, 2010, , .	0.8	4
58	UV Laser Patterning for Biocompatibility Control of Polystyrene. Biophysical Journal, 2010, 98, 605a.	0.2	0
59	Vacuum ultraviolet laser-induced breakdown spectroscopy analysis of polymers. Spectrochimica Acta, Part B: Atomic Spectroscopy, 2009, 64, 1128-1134.	1.5	52
60	Plasma plume photography and spectroscopy of Feâ€"Oxide materials. Applied Surface Science, 2009, 255, 5215-5219.	3.1	22
61	Microgrinding of lensed fibers by means of a scanning-probe microscope setup. Applied Optics, 2009, 48, 6172.	2.1	10
62	Laser-induced breakdown spectroscopy of iron oxide powder. Journal of Analytical Atomic Spectrometry, 2009, 24, 973.	1.6	38
63	F₂-Laser Angle Nanomodification of PET. Materials Science Forum, 2008, 567-568, 257-260.	0.3	0
64	Characterization of nano-composite oxide ceramics and monitoring of oxide thin film growth by laser-induced breakdown spectroscopy. Spectrochimica Acta, Part B: Atomic Spectroscopy, 2008, 63, 1117-1121.	1.5	29
65	Gold coatings on polyethyleneterephthalate nano-patterned by F2 laser irradiation. Applied Surface Science, 2008, 254, 3585-3590.	3.1	35
66	Proliferation of aligned mammalian cells on laser-nanostructured polystyrene. Biomaterials, 2008, 29, 1796-1806.	5.7	219
67	Electroporation chip for adherent cells on photochemically modified polymer surfaces. Applied Physics Letters, 2008, 92, 013901.	1.5	23
68	Laser-induced nanopatterning, ablation, and plasma spectroscopy in the near-field of an optical fiber tip. , 2008, , .		9
69	Effects of laser irradiation on the morphology of Cu(110). Physical Review B, 2008, 78, .	1.1	4
70	Pulsed-laser deposition of oxides: high-T c superconductors and piezoelectrics. Proceedings of SPIE, 2008, , .	0.8	0
71	UV surface modification of a new nanocomposite polymer to improve cytocompatibility. Journal of Biomaterials Science, Polymer Edition, 2007, 18, 453-468.	1.9	30
72	Characterization and cytocompatibility of carbon layers prepared by photo-induced chemical vapor deposition. Thin Solid Films, 2007, 515, 6765-6772.	0.8	30

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73	Simple and versatile methods for the fabrication of arrays of live mammalian cells. Lab on A Chip, 2006, 6, 857.	3.1	41
74	Incorporation of a lauric acid-conjugated GRGDS peptide directly into the matrix of a poly(carbonate-urea)urethane polymer for use in cardiovascular bypass graft applications. Journal of Biomedical Materials Research - Part A, 2006, 79A, 606-617.	2.1	22
75	LIBS micro-analysis of solid aluminum samples by use of optical fibers as light guide. , 2006, , .		2
76	Photochemical surface modification of polymers for biomedical applications. , 2006, , .		1
77	Cell microarrays on photochemically modified polytetrafluoroethylene. Biomaterials, 2005, 26, 5572-5580.	5.7	66
78	Modification of expanded polytetrafluoroethylene by UV irradiation in reactive and inert atmosphere. Applied Physics A: Materials Science and Processing, 2005, 80, 27-33.	1.1	15
79	Polytetrafluoroethylene (PTFE) films prepared by F2-laser deposition. EPJ Applied Physics, 2005, 29, 231-238.	0.3	10
80	Surface modification of polymers by UV-irradiation: applications in micro- and biotechnology. , 2005, , .		2
81	F 2 -laser polishing of polytetrafluoroethylene surfaces. Europhysics Letters, 2005, 70, 831-835.	0.7	8
82	Cell proliferation on UV-excimer lamp modified and grafted polytetrafluoroethylene. Nuclear Instruments & Methods in Physics Research B, 2004, 217, 307-313.	0.6	35
83	Adhesion and proliferation of human vascular cells on UV-light-modified polymers. Biotechnology and Applied Biochemistry, 2004, 39, 59.	1.4	26
84	Bio-compatibility of ion beam-modified and RGD-grafted polyethylene. Nuclear Instruments & Methods in Physics Research B, 2004, 225, 275-282.	0.6	47
85	In situ Analysis of Metal Melts in Metallurgic Vacuum Devices by Laser-Induced Breakdown Spectroscopy. Applied Spectroscopy, 2004, 58, 457-462.	1.2	50
86	Near-field optical nanopatterning of crystalline silicon. Applied Physics Letters, 2004, 84, 2025-2027.	1.5	42
87	Pulsed-laser ablation of polytetrafluoroethylene (PTFE) at various wavelengths. EPJ Applied Physics, 2004, 25, 33-38.	0.3	26
88	Perspectives of laser processing and chemistry. Applied Physics A: Materials Science and Processing, 2003, 77, 203-207.	1.1	15
89	Cell adhesion on polytetrafluoroethylene modified by UV-irradiation in an ammonia atmosphere. Journal of Biomedical Materials Research - Part A, 2003, 67A, 130-137.	2.1	52
90	Adhesion and proliferation of human endothelial cells on photochemically modified polytetrafluoroethylene. Biomaterials, 2003, 24, 5139-5144.	5.7	82

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91	Laser-induced single step micro/nanopatterning. , 2003, , .		7
92	<title>In situ analysis of steel under reduced ambient pressure by laser-induced breakdown spectroscopy</title>. , 2003, 5120, 588.		4
93	Laser cleaning of polymer surfaces. Applied Physics A: Materials Science and Processing, 2001, 72, 1-6.	1.1	53
94	Chemical composition and charge stability of highly crystalline pulsed-laser-deposited polytetrafluoroethylene films on metal substrates. Applied Physics A: Materials Science and Processing, 2001, 72, 581-585.	1.1	15
95	Rapid in-situ analysis of liquid steel by laser-induced breakdown spectroscopy. Spectrochimica Acta, Part B: Atomic Spectroscopy, 2001, 56, 685-693.	1.5	143
96	Amino acids grafting of Ar+ ions modified PE. Radiation Physics and Chemistry, 2001, 60, 89-93.	1.4	33
97	Muscle cell adhesion on polytetrafluorethylene modified by UV irradiation. Journal of Materials Science Letters, 2001, 20, 1941-1942.	0.5	9
98	Degradation of polyimide by 100 keV He+, Ne+, Ar+ and Kr+ ions. Nuclear Instruments & Methods in Physics Research B, 2001, 175-177, 437-441.	0.6	11
99	Etching of crystalline Si in Cl2 atmosphere by means of an optical fiber tip. Applied Physics Letters, 2001, 79, 159-161.	1.5	15
100	Time-resolved photography of the plasma-plume and ejected particles in laser ablation of polytetrafluoroethylene. Europhysics Letters, 2000, 51, 674-678.	0.7	24
101	Pulsed-Laser Deposition and Characterization of Thin Films. , 2000, , 261-271.		0
102	<title>Dielectric dilatometry on thin Teflon-PTFE films prepared by pulsed-laser deposition</title>. , 1999, , .		0
103	Characterization of particulates accompanying laser ablation of pressed polytetrafluorethylene (PTFE) targets. Applied Physics A: Materials Science and Processing, 1999, 68, 515-523.	1.1	49
104	Spherical expansion of the vapor plume into ambient gas: an analytical model. Applied Physics A: Materials Science and Processing, 1999, 69, S87-S93.	1.1	68
105	Particles in laser ablation of polytetrafluoroethylene. Applied Physics A: Materials Science and Processing, 1999, 69, S467-S470.	1.1	13
106	Laser-induced dendritic structures on PET (polyethylene- terephthalate): the importance of redeposited ablation products. Applied Physics A: Materials Science and Processing, 1999, 69, S487-S490.	1.1	15
107	Pulsed-laser-deposited and plasma-polymerized polytetrafluoroethylene (PTFE)-like thin films: A comparative study on PTFE-specific properties. Journal of Polymer Science, Part B: Polymer Physics, 1999, 37, 2115-2125.	2.4	27
108	Spherical expansion of the vapor plume into ambient gas: an analytical model. Applied Physics A: Materials Science and Processing, 1999, 69, S87-S93.	1.1	134

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109	Pulsed-laser deposition of crystalline Teflon (PTFE) films. Applied Surface Science, 1998, 125, 17-22.	3.1	94
110	Charge stability of pulsed-laser deposited polytetrafluoroethylene film electrets. Applied Physics Letters, 1998, 73, 2941-2943.	1.5	50
111	Deposition of Ablation Products from UV-Laser Irradiated Polymer Surfaces. Materials Research Society Symposia Proceedings, 1998, 526, 385.	0.1	5
112	Excimer-laser ablation and micro-patterning of ceramic Si 3 N 4. Applied Physics A: Materials Science and Processing, 1997, 65, 259-261.	1.1	40
113	Chemical surface modification on polytetrafluoroethylene films by vacuum ultraviolet excimer lamp irradiation in ammonia gas atmosphere. Applied Physics Letters, 1996, 68, 2648-2650.	1.5	45
114	Surface Modification of Fluorocarbon Polymers by Vacuum-UV Excimer Lamp Irradiation in Reactive Gas Atmosphere. Japanese Journal of Applied Physics, 1996, 35, 4110-4116.	0.8	19
115	Laser-enhanced adhesion and thin film formation. , 1996, , .		8
116	Surface Patterning and Thin-Film Formation by Pulsed-Laser Ablation. Materials Science Forum, 1995, 173-174, 41-52.	0.3	5
117	Instabilities and Structure Formation in Laser Processing. Materials Research Society Symposia Proceedings, 1995, 397, 573.	0.1	0
118	Laser-induced surface modifications, structure formation, and ablation of organic polymers. , 1995, , .		6
119	Improvements of the peel test for adhesion evaluation of thin metallic films on polymeric substrates. Journal of Adhesion Science and Technology, 1994, 8, 29-40.	1.4	13
120	Femtosecond excimer-laser-induced structure formation on polymers. Applied Physics A: Solids and Surfaces, 1994, 59, 289-293.	1.4	57
121	Growth of excimer-laser-induced dendritic surface structures on polyethylene-terephthalate. Applied Surface Science, 1994, 81, 103-106.	3.1	8
122	Non-Coherent Structure Formation on UV-Laser Irradiated Polymers. , 1994, , 237-243.		1
123	Laser-induced surface modification and structure formation of polymers. Applied Surface Science, 1993, 69, 16-19.	3.1	46
124	Dendritic surface structures on excimer-laser irradiated PET foils. Applied Physics A: Solids and Surfaces, 1993, 56, 329-333.	1.4	16
125	Enhanced adhesion of metal films on PET after UV-laser treatment. Applied Physics A: Solids and Surfaces, 1992, 55, 391-392.	1.4	45
126	Structure formation in UV-laser-ablated polyimide foils. Applied Physics A: Solids and Surfaces, 1992, 55, 119-120.	1.4	33

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127	Femtosecond-excimer-laser patterning of YBa2Cu3O7 films. Applied Physics A: Solids and Surfaces, 1991, 53, 282-283.	1.4	16
128	Structure formation in UV-laser ablated poly-ethylene-terephthalate (PET). Applied Physics A: Solids and Surfaces, 1991, 53, 330-331.	1.4	50
129	KrF laserâ€induced ablation and patterning of Yâ€“Baâ€“Cuâ€“O films. Journal of Applied Physics, 1990, 68, 2512-2514.	1.1	27
130	Dielectric and electret properties of novel Teflon PTFE and PTFE-like polymers. , 0, , .		10
131	Biocompatible Micro-patterns on Surface Modified PTFE. , 0, , .		0