Zdenka Kolska

List of Publications by Year
in descending order

111 papers	2,985 citations	257357 24 h-index	197736 49 g-index
111 all docs	111 docs citations	111 times ranked	3780 citing authors

#	Article	IF	Citations
1	Permeability enhancement of chemically modified and grafted polyamide layer of thin-film composite membranes for biogas upgrading. Journal of Membrane Science, 2022, 641, 119890.	4.1	8
2	Adsorption of organic dyes on macroporous melamine sponge incorporating conducting polypyrrole nanotubes. Journal of Applied Polymer Science, 2022, 139, .	1.3	9
3	Influence of UV irradiation and subsequent chemical grafting on the surface properties of cellulose. Cellulose, 2022, 29, 1405-1418.	2.4	5
4	Plasma treatment of PTFE at elevated temperature: The effect of surface properties on its biological performance. Materials Today Communications, 2022, 31, 103254.	0.9	3
5	Enhancing immobilization of iron oxide particles on various polymer surfaces. Polymer Engineering and Science, 2022, 62, 1463-1472.	1.5	3
6	Polypyrrole-Coated Melamine Sponge as a Precursor for Conducting Macroporous Nitrogen-Containing Carbons. Coatings, 2022, 12, 324.	1.2	9
7	Covalent functionalization of Ti3C2T MXene flakes with Gd-DTPA complex for stable and biocompatible MRI contrast agent. Chemical Engineering Journal, 2022, 446, 136939.	6.6	20
8	A surface plasmon polariton-triggered Z-scheme for overall water splitting and solely light-induced hydrogen generation. Journal of Materials Chemistry A, 2022, 10, 13829-13838.	5.2	7
9	Grafting of silver nanospheres and nanoplates onto plasma activated PET: Effect of nanoparticle shape on antibacterial activity. Vacuum, 2022, 203, 111268.	1.6	2
10	Carbon Transformation Induced by High Energy Excimer Treatment. Materials, 2022, 15, 4614.	1.3	2
11	Reversible wettability switching of piezo-responsive nanostructured polymer fibers by electric field. Chemical Papers, 2021, 75, 191-196.	1.0	5
12	Smart recycling of PET to sorbents for insecticides through in situ MOF growth. Applied Materials Today, 2021, 22, 100910.	2.3	17
13	Conversion of conducting polypyrrole nanostructures to nitrogen-containing carbons and its impact on the adsorption of organic dye. Materials Advances, 2021, 2, 706-717.	2.6	22
14	Antibacterial Properties of Plasma-Activated Perfluorinated Substrates with Silver Nanoclusters Deposition. Nanomaterials, 2021, 11, 182.	1.9	10
15	Biopolymer Composites with Ti/Au Nanostructures and Their Antibacterial Properties. Pharmaceutics, 2021, 13, 826.	2.0	4
16	Influence of Drying Method and Argon Plasma Modification of Bacterial Nanocellulose on Keratinocyte Adhesion and Growth. Nanomaterials, 2021, 11, 1916.	1.9	13
17	Comparison of carbonized and activated polypyrrole globules, nanofibers, and nanotubes as conducting nanomaterials and adsorbents of organic dye. Carbon Trends, 2021, 4, 100068.	1.4	10
18	Conducting polypyrrole-coated macroporous melamine sponges: a simple toy or an advanced material?. Chemical Papers, 2021, 75, 5035-5055.	1.0	12

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19	Pressure-Sensitive Conducting and Antibacterial Materials Obtained by in Situ Dispersion Coating of Macroporous Melamine Sponges with Polypyrrole. ACS Omega, 2021, 6, 20895-20901.	1.6	12
20	Printable Resin Modified by Grafted Silver Nanoparticles for Preparation of Antifouling Microstructures with Antibacterial Effect. Polymers, 2021, 13, 3838.	2.0	3
21	Chitosanâ€capped sulfur microparticles grafted on UVâ€treated PET surface. Surface and Interface Analysis, 2021, 53, 108-117.	0.8	5
22	Cu phthalocyanine, Cu and Fe@Au nanoparticles grafted polyethylene: From structural to magnetic properties. Materials Chemistry and Physics, 2020, 239, 122104.	2.0	1
23	Nanophaseâ€separated poly(acrylic acid)/poly(ethylene oxide) plasma polymers for the spatially localized attachment of biomolecules. Plasma Processes and Polymers, 2020, 17, 1900220.	1.6	8
24	Methods of Gold and Silver Nanoparticles Preparation. Materials, 2020, 13, 1.	1.3	351
25	Application of a 2D Molybdenum Telluride in SERS Detection of Biorelevant Molecules. ACS Applied Materials & Interfaces, 2020, 12, 47774-47783.	4.0	25
26	Honeycomb-patterned poly(L-lactic) acid on plasma-activated FEP as cell culture scaffold. Polymer Degradation and Stability, 2020, 181, 109370.	2.7	13
27	A new way to prepare gold nanoparticles by sputtering â€“ Sterilization, stability and other properties. Materials Science and Engineering C, 2020, 115, 111087.	3.8	14
28	Plasmon-Induced Water Splittingâ€”through Flexible Hybrid 2D Architecture up to Hydrogen from Seawater under NIR Light. ACS Applied Materials & Interfaces, 2020, 12, 28110-28119.	4.0	41
29	Antimicrobial effect of polymers grafted with cinnamaldehyde. Materials Letters, 2020, 277, 128274.	1.3	9
30	Nanostructured Surface and Antimicrobial Properties of Chemically Modified Polymer Foils. ChemistrySelect, 2019, 4, 4382-4391.	0.7	0
31	Carbon nanostructures grafted biopolymers for medical applications. Materials Technology, 2019, 34, 376-385.	1.5	4
32	Fast and All-Optical Hydrogen Sensor Based on Gold-Coated Optical Fiber Functionalized with Metalâ€“Organic Framework Layer. ACS Sensors, 2019, 4, 3133-3140.	4.0	46
33	Stability of antibacterial modification of nanofibrous PA6/DTAB membrane during air filtration. Materials Science and Engineering C, 2019, 96, 807-813.	3.8	15
34	Antimicrobial and photophysical properties of chemically grafted ultra-high-molecular-weight polyethylene. Materials Science and Engineering C, 2019, 96, 479-486.	3.8	13
35	Refractometric study of systems water-poly(ethylene glycol) for preparation and characterization of Au nanoparticles dispersion. Arabian Journal of Chemistry, 2019, 12, 5019-5027.	2.3	13
36	A simple approach for fabrication of optical affinity-based bioanalytical microsystem on polymeric PEN foils. Colloids and Surfaces B: Biointerfaces, 2018, 165, 28-36.	2.5	12

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37	Electrospun Antimicrobial PVDFâ€ÐTAB Nanofibrous Membrane for Air Filtration: Effect of DTAB on Structure, Morphology, Adhesion, and Antibacterial Properties. Macromolecular Materials and Engineering, 2018, 303, 1700415.	1.7	21
38	Surface instability on polyethersulfone induced by dual laser treatment for husk nanostructure construction. Reactive and Functional Polymers, 2018, 125, 20-28.	2.0	8
39	Nanocomposite of polystyrene foil grafted with metallaboranes for antimicrobial activity. Applied Surface Science, 2018, 441, 120-129.	3.1	16
40	Magnetic and Surface Properties of Metallophthalocyanines (M = Cu, Fe) Grafted Polyethylene. Journal of Physical Chemistry C, 2018, 122, 1396-1403.	1.5	4
41	Polymer nanostructures for bioapplications induced by laser treatment. Biotechnology Advances, 2018, 36, 839-855.	6.0	67
42	Stem cells: their source, potency and use in regenerative therapies with focus on adipose-derived stem cells â€“ a review. Biotechnology Advances, 2018, 36, 1111-1126.	6.0	343
43	Properties of polyamide nanofibers treated by UV-A radiation. Materials Letters, 2018, 214, 264-267.	1.3	15
44	Plasmonâ€Polariton Induced, â€œfrom Surfaceâ€•RAFT Polymerization, as a Way toward Creation of Grafted Polymer Films with Thickness Precisely Controlled by Selfâ€Limiting Mechanism. Advanced Materials Interfaces, 2018, 5, 1801042.	1.9	25
45	Antimicrobial and optical properties of PET chemically modified and grafted with borane compounds. RSC Advances, 2018, 8, 15001-15008.	1.7	11
46	Construction and Properties of Ripples on Polymers for Sensor Applications. Manufacturing Technology, 2018, 18, 851-855.	0.2	2
47	Tuning of PEDOT:PSS Properties Through Covalent Surface Modification. Journal of Polymer Science, Part B: Polymer Physics, 2017, 55, 378-387.	2.4	19
48	Copperâ€“gold sandwich structures on PE and PET and their SERS enhancement effect. RSC Advances, 2017, 7, 23055-23064.	1.7	8
49	Cytocompatibility of polyethylene grafted with triethylenetetramine functionalized carbon nanoparticles. Applied Surface Science, 2017, 422, 809-816.	3.1	12
50	Adhesion ofMegasphaera cerevisiaeonto solid surfaces mimicking materials used in breweries. Journal of the Institute of Brewing, 2017, 123, 204-210.	0.8	4
51	Surface modification of Au and Ag plasmonic thin films via diazonium chemistry: Evaluation of structure and properties. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2017, 516, 274-285.	2.3	53
52	Antibacterial modification of nylon-6 nanofibers: structure, properties and antibacterial activity.. Journal of Polymer Research, 2017, 24, 1.	1.2	25
53	Tuning Surface Chemistry of Polyetheretherketone by Gold Coating and Plasma Treatment. Nanoscale Research Letters, 2017, 12, 424.	3.1	13
54	The interplay of plasma treatment and gold coating and ultra-high molecular weight polyethylene: On the cytocompatibility. Materials Science and Engineering C, 2017, 71, 125-131.	3.8	9

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55	Largeâ€Scale, Ultrasensitive, Highly Reproducible and Reusable Smart SERS Platform Based on PNIPAmâ€Grafted Gold Grating. ChemNanoMat, 2017, 3, 135-144.	1.5	33
56	Spatially selective modification of PLLA surface: From hydrophobic to hydrophilic or to repellent. Applied Surface Science, 2017, 397, 226-234.	3.1	22
57	Study of binary system glycerineâ€“water and its colloidal samples of silver nanoparticles. Journal of Molecular Liquids, 2016, 218, 363-372.	2.3	10
58	Annealing of gold nanolayers sputtered on polyimide and polyetheretherketone. Thin Solid Films, 2016, 616, 188-196.	0.8	7
59	Accelerated dephosphorylation of adenosine phosphates and related compounds in the presence of nanocrystalline cerium oxide. Environmental Science: Nano, 2016, 3, 847-856.	2.2	28
60	Change of surface properties of gold nano-layers deposited on polyethersulfone film due to annealing. Materials Letters, 2016, 165, 33-36.	1.3	10
61	Cytocompatibility of amine functionalized carbon nanoparticles grafted on polyethylene. Materials Science and Engineering C, 2016, 60, 394-401.	3.8	21
62	Time dependence of the surface chemistry of the plasma treated polypropylene powder. Advanced Powder Technology, 2016, 27, 262-267.	2.0	11
63	Structure and surface properties of chitosan/PEO/gelatin nanofibrous membrane. Journal of Polymer Research, 2016, 23, 1.	1.2	14
64	Surface Treatment of Materials for Variable Applications and Surface Properties and Characterization. Manufacturing Technology, 2016, 16, 949-955.	0.2	5
65	Microscopy of Material Surfaces for Tissue Engineering. Manufacturing Technology, 2016, 16, 1162-1168.	0.2	1
66	Tailoring of PEEK bioactivity for improved cell interaction: plasma treatment in action. RSC Advances, 2015, 5, 41428-41436.	1.7	50
67	Enhanced adherence of mouse fibroblast and vascular cells to plasma modified polyethylene. Materials Science and Engineering C, 2015, 52, 259-266.	3.8	35
68	Antibacterial wound dressing: plasma treatment effect on chitosan impregnation and in situ synthesis of silver chloride on cellulose surface. RSC Advances, 2015, 5, 17690-17699.	1.7	53
69	Nano-structured and functionalized surfaces for cytocompatibility improvement and bactericidal action. Biotechnology Advances, 2015, 33, 1120-1129.	6.0	125
70	Direct immobilization of biotin on the micro-patterned PEN foil treated by excimer laser. Colloids and Surfaces B: Biointerfaces, 2015, 128, 363-369.	2.5	12
71	Phase composition and surface properties of nylon-6 nanofibers prepared by nanospider technology at various electrode distances. Journal of Polymer Research, 2015, 22, 1.	1.2	11
72	A new luminescent montmorillonite/borane nanocomposite. Applied Clay Science, 2015, 118, 295-300.	2.6	11

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73	Interaction of Human Osteoblast-Like Saos-2 and MG-63 Cells with Thermally Oxidized Surfaces of a Titanium-Niobium Alloy. PLoS ONE, 2014, 9, e100475.	1.1	47
74	Physicochemical Properties of Gold Nanostructures Deposited on Glass. Journal of Nanomaterials, 2014, 2014, 1-8.	1.5	4
75	Characterization of Surface Nanostructures onâ€œThinâ€•Polyolephine Foils. Journal of Nano Research, 2014, 27, 31-39.	0.8	0
76	Oriented gold ripple-like structures on poly-l-lactic acid. Applied Surface Science, 2014, 321, 503-510.	3.1	19
77	Grafting of Gold Nanoparticles on Glass Using Sputtered Gold Interlayers. Journal of Chemistry, 2014, 2014, 1-6.	0.9	5
78	Immobilization of silver nanoparticles on polyethylene terephthalate. Nanoscale Research Letters, 2014, 9, 305.	3.1	24
79	Grafting of bovine serum albumin proteins on plasma-modified polymers for potential application in tissue engineering. Nanoscale Research Letters, 2014, 9, 161.	3.1	38
80	Cells adhesion and growth on gold nanoparticle grafted glass. Applied Surface Science, 2014, 307, 217-223.	3.1	15
81	Plasma activated polymers grafted with cysteamine improving surfaces cytocompatibility. Polymer Degradation and Stability, 2014, 101, 1-9.	2.7	63
82	Properties of silver nanostructure-coated PTFE and its biocompatibility. Nanoscale Research Letters, 2013, 8, 388.	3.1	24
83	Volumetric behavior of the ternary system benzene-2-methoxy-2-methylbutane-2,2,4-trimethylpentane and all binary sub-systems at temperature range (298.15â€“318.15)K. Fluid Phase Equilibria, 2013, 337, 156-164.	1.4	4
84	Grafting of plasma activated polyethyleneterephthalate with gold nanorods. Materials Letters, 2013, 91, 341-344.	1.3	8
85	Characterization of surface chemical modified carbon nano-particles. Materials Letters, 2013, 102-103, 83-86.	1.3	11
86	Cytocompatibility of Plasma and Thermally Treated Biopolymers. Journal of Nanomaterials, 2013, 2013, 1-10.	1.5	6
87	â€œShortâ€•Dithiol and Au Nanoparticles Grafting on Plasma Treated Polyethyleneterephthalate. Journal of Nano Research, 2013, 25, 40-48.	0.8	7
88	Enhancement of Polymer Cytocompatibility by Nanostructuring of Polymer Surface. Journal of Nanomaterials, 2012, 2012, 1-17.	1.5	11
89	Surface characterization of polymer foils. E-Polymers, 2012, 12, .	1.3	15
90	Progressive approach for metal nanoparticle synthesis. Materials Letters, 2012, 89, 47-50.	1.3	91

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91	Nanostructuring of polymethylpentene by plasma and heat treatment for improved biocompatibility. Polymer Degradation and Stability, 2012, 97, 1075-1082.	2.7	48
92	A novel method for biopolymer surface nanostructuring by platinum deposition and subsequent thermal annealing. Nanoscale Research Letters, 2012, 7, 671.	3.1	18
93	Surface Modification of Biopolymers by Argon Plasma and Thermal Treatment. Plasma Processes and Polymers, 2012, 9, 197-206.	1.6	84
94	Grafting of gold nanoparticles and nanorods on plasma-treated polymers by thiols. Journal of Materials Science, 2012, 47, 6297-6304.	1.7	35
95	Surface properties of poly(ethylene terephthalate) foils of different thicknesses. Journal of Materials Science, 2012, 47, 6429-6435.	1.7	5
96	Au nanoparticles grafted on plasma treated polymers. Journal of Materials Science, 2011, 46, 7917-7922.	1.7	25
97	Nano-structuring of PTFE surface by plasma treatment, etching, and sputtering with gold. Journal of Nanoparticle Research, 2011, 13, 2929-2938.	0.8	25
98	Annealing of gold nanostructures sputtered on polytetrafluoroethylene. Nanoscale Research Letters, 2011, 6, 588.	3.1	22
99	"Soft and rigid" dithiols and Au nanoparticles grafting on plasma-treated polyethyleneterephthalate. Nanoscale Research Letters, 2011, 6, 607.	3.1	31
100	Properties of gold nanostructures sputtered on glass. Nanoscale Research Letters, 2011, 6, 96.	3.1	125
101	Volumetric behavior of the binary systems benzeneâ€“cyclohexane and benzeneâ€“2,2,4-trimethyl-pentane at temperatures 293.15â€“323.15K. Fluid Phase Equilibria, 2011, 303, 157-161.	1.4	14
102	Tool for group contribution methods â€“ computational fragmentation. Collection of Czechoslovak Chemical Communications, 2010, 75, 393-404.	1.0	3
103	Variable surface properties of PTFE foils. E-Polymers, 2010, 10, .	1.3	5
104	Size-dependent density of gold nano-clusters and nano-layers deposited on solid surface. Collection of Czechoslovak Chemical Communications, 2010, 75, 517-525.	1.0	4
105	Heat Capacity of Liquids: Critical Review and Recommended Values. Supplement II. Journal of Physical and Chemical Reference Data, 2010, 39, .	1.9	86
106	Application of the group contribution approach to Nafion swelling. Journal of Applied Polymer Science, 2009, 111, 1745-1750.	1.3	16
107	Estimation of the Heat Capacity of Organic Liquids as a Function of Temperature by a Three-Level Group Contribution Method. Industrial & Engineering Chemistry Research, 2008, 47, 2075-2085.	1.8	84
108	Estimation of the Enthalpy of Vaporization and the Entropy of Vaporization for Pure Organic Compounds at 298.15 K and at Normal Boiling Temperature by a Group Contribution Method. Industrial & Engineering Chemistry Research, 2005, 44, 8436-8454.	1.8	75

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109	Group Contribution Methods for Estimation of Selected Physico-Chemical Properties of Organic Compounds. , 0, , .		8
110	Electrokinetic Potential for Characterization of Nanosctructured Solid Flat Surfaces. Journal of Nano Research, 0, 25, 31-39.	0.8	19
111	Antibacterial nanocomposite supporting cell growth and spheroid formation by chemical surface treatment of polymer foil. Surface and Interface Analysis, 0, , .	0.8	1