

Zdenka Kolska

List of Publications by Year in descending order

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111
papers

2,985
citations

257101

24
h-index

197535

49
g-index

111
all docs

111
docs citations

111
times ranked

3780
citing authors

#	ARTICLE	IF	CITATIONS
1	Methods of Gold and Silver Nanoparticles Preparation. <i>Materials</i> , 2020, 13, 1.	1.3	351
2	Stem cells: their source, potency and use in regenerative therapies with focus on adipose-derived stem cells – a review. <i>Biotechnology Advances</i> , 2018, 36, 1111-1126.	6.0	343
3	Properties of gold nanostructures sputtered on glass. <i>Nanoscale Research Letters</i> , 2011, 6, 96.	3.1	125
4	Nano-structured and functionalized surfaces for cytocompatibility improvement and bactericidal action. <i>Biotechnology Advances</i> , 2015, 33, 1120-1129.	6.0	125
5	Progressive approach for metal nanoparticle synthesis. <i>Materials Letters</i> , 2012, 89, 47-50.	1.3	91
6	Heat Capacity of Liquids: Critical Review and Recommended Values. Supplement II. <i>Journal of Physical and Chemical Reference Data</i> , 2010, 39, .	1.9	86
7	Estimation of the Heat Capacity of Organic Liquids as a Function of Temperature by a Three-Level Group Contribution Method. <i>Industrial & Engineering Chemistry Research</i> , 2008, 47, 2075-2085.	1.8	84
8	Surface Modification of Biopolymers by Argon Plasma and Thermal Treatment. <i>Plasma Processes and Polymers</i> , 2012, 9, 197-206.	1.6	84
9	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. <i>Industrial & Engineering Chemistry Research</i> , 2005, 44, 8436-8454.	1.8	75
10	Polymer nanostructures for bioapplications induced by laser treatment. <i>Biotechnology Advances</i> , 2018, 36, 839-855.	6.0	67
11	Plasma activated polymers grafted with cysteamine improving surfaces cytocompatibility. <i>Polymer Degradation and Stability</i> , 2014, 101, 1-9.	2.7	63
12	Antibacterial wound dressing: plasma treatment effect on chitosan impregnation and in situ synthesis of silver chloride on cellulose surface. <i>RSC Advances</i> , 2015, 5, 17690-17699.	1.7	53
13	Surface modification of Au and Ag plasmonic thin films via diazonium chemistry: Evaluation of structure and properties. <i>Colloids and Surfaces A: Physicochemical and Engineering Aspects</i> , 2017, 516, 274-285.	2.3	53
14	Tailoring of PEEK bioactivity for improved cell interaction: plasma treatment in action. <i>RSC Advances</i> , 2015, 5, 41428-41436.	1.7	50
15	Nanostructuring of polymethylpentene by plasma and heat treatment for improved biocompatibility. <i>Polymer Degradation and Stability</i> , 2012, 97, 1075-1082.	2.7	48
16	Interaction of Human Osteoblast-Like Saos-2 and MG-63 Cells with Thermally Oxidized Surfaces of a Titanium-Niobium Alloy. <i>PLoS ONE</i> , 2014, 9, e100475.	1.1	47
17	Fast and All-Optical Hydrogen Sensor Based on Gold-Coated Optical Fiber Functionalized with Metal-Organic Framework Layer. <i>ACS Sensors</i> , 2019, 4, 3133-3140.	4.0	46
18	Plasmon-Induced Water Splitting through Flexible Hybrid 2D Architecture up to Hydrogen from Seawater under NIR Light. <i>ACS Applied Materials & Interfaces</i> , 2020, 12, 28110-28119.	4.0	41

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19	Grafting of bovine serum albumin proteins on plasma-modified polymers for potential application in tissue engineering. <i>Nanoscale Research Letters</i> , 2014, 9, 161.	3.1	38
20	Grafting of gold nanoparticles and nanorods on plasma-treated polymers by thiols. <i>Journal of Materials Science</i> , 2012, 47, 6297-6304.	1.7	35
21	Enhanced adherence of mouse fibroblast and vascular cells to plasma modified polyethylene. <i>Materials Science and Engineering C</i> , 2015, 52, 259-266.	3.8	35
22	Large-scale, Ultrasensitive, Highly Reproducible and Reusable Smart SERS Platform Based on PNIPAA-grafted Gold Grating. <i>ChemNanoMat</i> , 2017, 3, 135-144.	1.5	33
23	"Soft and rigid" dithiols and Au nanoparticles grafting on plasma-treated polyethyleneterephthalate. <i>Nanoscale Research Letters</i> , 2011, 6, 607.	3.1	31
24	Accelerated dephosphorylation of adenosine phosphates and related compounds in the presence of nanocrystalline cerium oxide. <i>Environmental Science: Nano</i> , 2016, 3, 847-856.	2.2	28
25	Au nanoparticles grafted on plasma treated polymers. <i>Journal of Materials Science</i> , 2011, 46, 7917-7922.	1.7	25
26	Nano-structuring of PTFE surface by plasma treatment, etching, and sputtering with gold. <i>Journal of Nanoparticle Research</i> , 2011, 13, 2929-2938.	0.8	25
27	Antibacterial modification of nylon-6 nanofibers: structure, properties and antibacterial activity.. <i>Journal of Polymer Research</i> , 2017, 24, 1.	1.2	25
28	Plasmon-Polariton Induced, α -form Surface-RAFT Polymerization, as a Way toward Creation of Grafted Polymer Films with Thickness Precisely Controlled by Self-Limiting Mechanism. <i>Advanced Materials Interfaces</i> , 2018, 5, 1801042.	1.9	25
29	Application of a 2D Molybdenum Telluride in SERS Detection of Biorelevant Molecules. <i>ACS Applied Materials & Interfaces</i> , 2020, 12, 47774-47783.	4.0	25
30	Properties of silver nanostructure-coated PTFE and its biocompatibility. <i>Nanoscale Research Letters</i> , 2013, 8, 388.	3.1	24
31	Immobilization of silver nanoparticles on polyethylene terephthalate. <i>Nanoscale Research Letters</i> , 2014, 9, 305.	3.1	24
32	Annealing of gold nanostructures sputtered on polytetrafluoroethylene. <i>Nanoscale Research Letters</i> , 2011, 6, 588.	3.1	22
33	Spatially selective modification of PLLA surface: From hydrophobic to hydrophilic or to repellent. <i>Applied Surface Science</i> , 2017, 397, 226-234.	3.1	22
34	Conversion of conducting polypyrrole nanostructures to nitrogen-containing carbons and its impact on the adsorption of organic dye. <i>Materials Advances</i> , 2021, 2, 706-717.	2.6	22
35	Cytocompatibility of amine functionalized carbon nanoparticles grafted on polyethylene. <i>Materials Science and Engineering C</i> , 2016, 60, 394-401.	3.8	21
36	Electrospun Antimicrobial PVDF- γ -DTAB Nanofibrous Membrane for Air Filtration: Effect of DTAB on Structure, Morphology, Adhesion, and Antibacterial Properties. <i>Macromolecular Materials and Engineering</i> , 2018, 303, 1700415.	1.7	21

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37	Covalent functionalization of Ti ₃ C ₂ T MXene flakes with Gd-DTPA complex for stable and biocompatible MRI contrast agent. <i>Chemical Engineering Journal</i> , 2022, 446, 136939.	6.6	20
38	Electrokinetic Potential for Characterization of Nanosctructured Solid Flat Surfaces. <i>Journal of Nano Research</i> , 0, 25, 31-39.	0.8	19
39	Oriented gold ripple-like structures on poly-L-lactic acid. <i>Applied Surface Science</i> , 2014, 321, 503-510.	3.1	19
40	Tuning of PEDOT:PSS Properties Through Covalent Surface Modification. <i>Journal of Polymer Science, Part B: Polymer Physics</i> , 2017, 55, 378-387.	2.4	19
41	A novel method for biopolymer surface nanostructuring by platinum deposition and subsequent thermal annealing. <i>Nanoscale Research Letters</i> , 2012, 7, 671.	3.1	18
42	Smart recycling of PET to sorbents for insecticides through in situ MOF growth. <i>Applied Materials Today</i> , 2021, 22, 100910.	2.3	17
43	Application of the group contribution approach to Nafion swelling. <i>Journal of Applied Polymer Science</i> , 2009, 111, 1745-1750.	1.3	16
44	Nanocomposite of polystyrene foil grafted with metallaboranes for antimicrobial activity. <i>Applied Surface Science</i> , 2018, 441, 120-129.	3.1	16
45	Surface characterization of polymer foils. <i>E-Polymers</i> , 2012, 12, .	1.3	15
46	Cells adhesion and growth on gold nanoparticle grafted glass. <i>Applied Surface Science</i> , 2014, 307, 217-223.	3.1	15
47	Properties of polyamide nanofibers treated by UV-A radiation. <i>Materials Letters</i> , 2018, 214, 264-267.	1.3	15
48	Stability of antibacterial modification of nanofibrous PA6/DTAB membrane during air filtration. <i>Materials Science and Engineering C</i> , 2019, 96, 807-813.	3.8	15
49	Volumetric behavior of the binary systems benzene-cyclohexane and benzene-2,2,4-trimethyl-pentane at temperatures 293.15-323.15K. <i>Fluid Phase Equilibria</i> , 2011, 303, 157-161.	1.4	14
50	Structure and surface properties of chitosan/PEO/gelatin nanofibrous membrane. <i>Journal of Polymer Research</i> , 2016, 23, 1.	1.2	14
51	A new way to prepare gold nanoparticles by sputtering - Sterilization, stability and other properties. <i>Materials Science and Engineering C</i> , 2020, 115, 111087.	3.8	14
52	Tuning Surface Chemistry of Polyetheretherketone by Gold Coating and Plasma Treatment. <i>Nanoscale Research Letters</i> , 2017, 12, 424.	3.1	13
53	Antimicrobial and photophysical properties of chemically grafted ultra-high-molecular-weight polyethylene. <i>Materials Science and Engineering C</i> , 2019, 96, 479-486.	3.8	13
54	Refractometric study of systems water-poly(ethylene glycol) for preparation and characterization of Au nanoparticles dispersion. <i>Arabian Journal of Chemistry</i> , 2019, 12, 5019-5027.	2.3	13

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55	Honeycomb-patterned poly(L-lactic) acid on plasma-activated FEP as cell culture scaffold. <i>Polymer Degradation and Stability</i> , 2020, 181, 109370.	2.7	13
56	Influence of Drying Method and Argon Plasma Modification of Bacterial Nanocellulose on Keratinocyte Adhesion and Growth. <i>Nanomaterials</i> , 2021, 11, 1916.	1.9	13
57	Direct immobilization of biotin on the micro-patterned PEN foil treated by excimer laser. <i>Colloids and Surfaces B: Biointerfaces</i> , 2015, 128, 363-369.	2.5	12
58	Cytocompatibility of polyethylene grafted with triethylenetetramine functionalized carbon nanoparticles. <i>Applied Surface Science</i> , 2017, 422, 809-816.	3.1	12
59	A simple approach for fabrication of optical affinity-based bioanalytical microsystem on polymeric PEN foils. <i>Colloids and Surfaces B: Biointerfaces</i> , 2018, 165, 28-36.	2.5	12
60	Conducting polypyrrole-coated macroporous melamine sponges: a simple toy or an advanced material?. <i>Chemical Papers</i> , 2021, 75, 5035-5055.	1.0	12
61	Pressure-Sensitive Conducting and Antibacterial Materials Obtained by <i>in Situ</i> Dispersion Coating of Macroporous Melamine Sponges with Polypyrrole. <i>ACS Omega</i> , 2021, 6, 20895-20901.	1.6	12
62	Enhancement of Polymer Cytocompatibility by Nanostructuring of Polymer Surface. <i>Journal of Nanomaterials</i> , 2012, 2012, 1-17.	1.5	11
63	Characterization of surface chemical modified carbon nano-particles. <i>Materials Letters</i> , 2013, 102-103, 83-86.	1.3	11
64	Phase composition and surface properties of nylon-6 nanofibers prepared by nanospider technology at various electrode distances. <i>Journal of Polymer Research</i> , 2015, 22, 1.	1.2	11
65	A new luminescent montmorillonite/borane nanocomposite. <i>Applied Clay Science</i> , 2015, 118, 295-300.	2.6	11
66	Time dependence of the surface chemistry of the plasma treated polypropylene powder. <i>Advanced Powder Technology</i> , 2016, 27, 262-267.	2.0	11
67	Antimicrobial and optical properties of PET chemically modified and grafted with borane compounds. <i>RSC Advances</i> , 2018, 8, 15001-15008.	1.7	11
68	Study of binary system glycerine-water and its colloidal samples of silver nanoparticles. <i>Journal of Molecular Liquids</i> , 2016, 218, 363-372.	2.3	10
69	Change of surface properties of gold nano-layers deposited on polyethersulfone film due to annealing. <i>Materials Letters</i> , 2016, 165, 33-36.	1.3	10
70	Antibacterial Properties of Plasma-Activated Perfluorinated Substrates with Silver Nanoclusters Deposition. <i>Nanomaterials</i> , 2021, 11, 182.	1.9	10
71	Comparison of carbonized and activated polypyrrole globules, nanofibers, and nanotubes as conducting nanomaterials and adsorbents of organic dye. <i>Carbon Trends</i> , 2021, 4, 100068.	1.4	10
72	The interplay of plasma treatment and gold coating and ultra-high molecular weight polyethylene: On the cytocompatibility. <i>Materials Science and Engineering C</i> , 2017, 71, 125-131.	3.8	9

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73	Antimicrobial effect of polymers grafted with cinnamaldehyde. <i>Materials Letters</i> , 2020, 277, 128274.	1.3	9
74	Adsorption of organic dyes on macroporous melamine sponge incorporating conducting polypyrrole nanotubes. <i>Journal of Applied Polymer Science</i> , 2022, 139, .	1.3	9
75	Polypyrrole-Coated Melamine Sponge as a Precursor for Conducting Macroporous Nitrogen-Containing Carbons. <i>Coatings</i> , 2022, 12, 324.	1.2	9
76	Group Contribution Methods for Estimation of Selected Physico-Chemical Properties of Organic Compounds. , 0, , .		8
77	Grafting of plasma activated polyethyleneterephthalate with gold nanorods. <i>Materials Letters</i> , 2013, 91, 341-344.	1.3	8
78	Copperâ€“gold sandwich structures on PE and PET and their SERS enhancement effect. <i>RSC Advances</i> , 2017, 7, 23055-23064.	1.7	8
79	Surface instability on polyethersulfone induced by dual laser treatment for husk nanostructure construction. <i>Reactive and Functional Polymers</i> , 2018, 125, 20-28.	2.0	8
80	Nanophaseâ€“separated poly(acrylic acid)/poly(ethylene oxide) plasma polymers for the spatially localized attachment of biomolecules. <i>Plasma Processes and Polymers</i> , 2020, 17, 1900220.	1.6	8
81	Permeability enhancement of chemically modified and grafted polyamide layer of thin-film composite membranes for biogas upgrading. <i>Journal of Membrane Science</i> , 2022, 641, 119890.	4.1	8
82	â€“Shortâ€“Dithiol and Au Nanoparticles Grafting on Plasma Treated Polyethyleneterephthalate. <i>Journal of Nano Research</i> , 2013, 25, 40-48.	0.8	7
83	Annealing of gold nanolayers sputtered on polyimide and polyetheretherketone. <i>Thin Solid Films</i> , 2016, 616, 188-196.	0.8	7
84	A surface plasmon polariton-triggered Z-scheme for overall water splitting and solely light-induced hydrogen generation. <i>Journal of Materials Chemistry A</i> , 2022, 10, 13829-13838.	5.2	7
85	Cytocompatibility of Plasma and Thermally Treated Biopolymers. <i>Journal of Nanomaterials</i> , 2013, 2013, 1-10.	1.5	6
86	Variable surface properties of PTFE foils. <i>E-Polymers</i> , 2010, 10, .	1.3	5
87	Surface properties of poly(ethylene terephthalate) foils of different thicknesses. <i>Journal of Materials Science</i> , 2012, 47, 6429-6435.	1.7	5
88	Grafting of Gold Nanoparticles on Glass Using Sputtered Gold Interlayers. <i>Journal of Chemistry</i> , 2014, 2014, 1-6.	0.9	5
89	Reversible wettability switching of piezo-responsive nanostructured polymer fibers by electric field. <i>Chemical Papers</i> , 2021, 75, 191-196.	1.0	5
90	Surface Treatment of Materials for Variable Applications and Surface Properties and Characterization. <i>Manufacturing Technology</i> , 2016, 16, 949-955.	0.2	5

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91	Chitosanâ€capped sulfur microparticles grafted on UVâ€treated PET surface. <i>Surface and Interface Analysis</i> , 2021, 53, 108-117.	0.8	5
92	Influence of UV irradiation and subsequent chemical grafting on the surface properties of cellulose. <i>Cellulose</i> , 2022, 29, 1405-1418.	2.4	5
93	Size-dependent density of gold nano-clusters and nano-layers deposited on solid surface. <i>Collection of Czechoslovak Chemical Communications</i> , 2010, 75, 517-525.	1.0	4
94	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. <i>Fluid Phase Equilibria</i> , 2013, 337, 156-164.	1.4	4
95	Physicochemical Properties of Gold Nanostructures Deposited on Glass. <i>Journal of Nanomaterials</i> , 2014, 2014, 1-8.	1.5	4
96	Adhesion of <i>Megasphaera cerevisiae</i> onto solid surfaces mimicking materials used in breweries. <i>Journal of the Institute of Brewing</i> , 2017, 123, 204-210.	0.8	4
97	Magnetic and Surface Properties of Metallophthalocyanines (M = Cu, Fe) Grafted Polyethylene. <i>Journal of Physical Chemistry C</i> , 2018, 122, 1396-1403.	1.5	4
98	Carbon nanostructures grafted biopolymers for medical applications. <i>Materials Technology</i> , 2019, 34, 376-385.	1.5	4
99	Biopolymer Composites with Ti/Au Nanostructures and Their Antibacterial Properties. <i>Pharmaceutics</i> , 2021, 13, 826.	2.0	4
100	Tool for group contribution methods â€“ computational fragmentation. <i>Collection of Czechoslovak Chemical Communications</i> , 2010, 75, 393-404.	1.0	3
101	Printable Resin Modified by Grafted Silver Nanoparticles for Preparation of Antifouling Microstructures with Antibacterial Effect. <i>Polymers</i> , 2021, 13, 3838.	2.0	3
102	Plasma treatment of PTFE at elevated temperature: The effect of surface properties on its biological performance. <i>Materials Today Communications</i> , 2022, 31, 103254.	0.9	3
103	Enhancing immobilization of iron oxide particles on various polymer surfaces. <i>Polymer Engineering and Science</i> , 2022, 62, 1463-1472.	1.5	3
104	Construction and Properties of Ripples on Polymers for Sensor Applications. <i>Manufacturing Technology</i> , 2018, 18, 851-855.	0.2	2
105	Grafting of silver nanospheres and nanoplates onto plasma activated PET: Effect of nanoparticle shape on antibacterial activity. <i>Vacuum</i> , 2022, 203, 111268.	1.6	2
106	Carbon Transformation Induced by High Energy Excimer Treatment. <i>Materials</i> , 2022, 15, 4614.	1.3	2
107	Cu phthalocyanine, Cu and Fe@Au nanoparticles grafted polyethylene: From structural to magnetic properties. <i>Materials Chemistry and Physics</i> , 2020, 239, 122104.	2.0	1
108	Microscopy of Material Surfaces for Tissue Engineering. <i>Manufacturing Technology</i> , 2016, 16, 1162-1168.	0.2	1

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109	Antibacterial nanocomposite supporting cell growth and spheroid formation by chemical surface treatment of polymer foil. Surface and Interface Analysis, 0, , .	0.8	1
110	Characterization of Surface Nanostructures on "Thin" Polyolephine Foils. Journal of Nano Research, 2014, 27, 31-39.	0.8	0
111	Nanostructured Surface and Antimicrobial Properties of Chemically Modified Polymer Foils. ChemistrySelect, 2019, 4, 4382-4391.	0.7	0