Zdenko Spitalsky

List of Publications by Year
in descending order

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88 papers	5,257 citations	147566 31 h-index	85405 71 g-index
91 all docs	91 docs citations	91 times ranked	7770 citing authors

#	Article	IF	Citations
1	Carbon nanotubeâ€“polymer composites: Chemistry, processing, mechanical and electrical properties. Progress in Polymer Science, 2010, 35, 357-401.	11.8	2,738
2	Electrospinning tissue engineering and wound dressing scaffolds from polymer-titanium dioxide nanocomposites. Chemical Engineering Journal, 2019, 358, 1262-1278.	6.6	192
3	Carbon Quantum Dots Modified Polyurethane Nanocomposite as Effective Photocatalytic and Antibacterial Agents. ACS Biomaterials Science and Engineering, 2018, 4, 3983-3993.	2.6	108
4	Effect of oxidation treatment of multiwalled carbon nanotubes on the mechanical and electrical properties of their epoxy composites. Composites Part A: Applied Science and Manufacturing, 2009, 40, 778-783.	3.8	104
5	Antibacterial and Antibiofouling Properties of Light Triggered Fluorescent Hydrophobic Carbon Quantum Dots Langmuirâ€“Blodgett Thin Films. ACS Sustainable Chemistry and Engineering, 2018, 6, 4154-4163.	3.2	102
6	Graphene quantum dots suppress proinflammatory T cell responses via autophagy-dependent induction of tolerogenic dendritic cells. Biomaterials, 2017, 146, 13-28.	5.7	84
7	Phase change materials based on high-density polyethylene filled with microencapsulated paraffin wax. Energy Conversion and Management, 2014, 87, 400-409.	4.4	79
8	Highly Efficient Antioxidant F- and Cl-Doped Carbon Quantum Dots for Bioimaging. ACS Sustainable Chemistry and Engineering, 2020, 8, 16327-16338.	3.2	71
9	Photo-induced antibacterial activity of four graphene based nanomaterials on a wide range of bacteria. RSC Advances, 2018, 8, 31337-31347.	1.7	69
10	Modification of carbon nanotubes and its effect on properties of carbon nanotube/epoxy nanocomposites. Polymer Composites, 2009, 30, 1378-1387.	2.3	67
11	The effect of oxidation treatment on the properties of multi-walled carbon nanotube thin films. Materials Science and Engineering B: Solid-State Materials for Advanced Technology, 2009, 165, 135-138.	1.7	62
12	Antibacterial photodynamic activity of carbon quantum dots/polydimethylsiloxane nanocomposites against Staphylococcus aureus, Escherichia coli and Klebsiella pneumoniae. Photodiagnosis and Photodynamic Therapy, 2019, 26, 342-349.	1.3	59
13	Controlled degradation of polyhydroxybutyrate via alcoholysis with ethylene glycol or glycerol. Polymer Degradation and Stability, 2006, 91, 856-861.	2.7	58
14	High volume fraction carbon nanotubeâ€“epoxy composites. Nanotechnology, 2009, 20, 405702.	1.3	58
15	Carbon Quantum Dots As Antibacterial Photosensitizers and Their Polymer Nanocomposite Applications. Particle and Particle Systems Characterization, 2020, 37, 1900348.	1.2	58
16	Electrical conductivity of poly(ethylene terephthalate)/expanded graphite nanocomposites prepared by in situ polymerization. Journal of Polymer Science, Part B: Polymer Physics, 2012, 50, 1645-1652.	2.4	55
17	Thin polyaniline and polyaniline/carbon nanocomposite films for gas sensing. Thin Solid Films, 2011, 519, 4123-4127.	0.8	54
18	Electrochemical oxidation of multi-wall carbon nanotubes. Carbon, 2011, 49, 2702-2708.	5.4	50

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19	Reliable determination of the fewâ€layer graphene oxide thickness using Raman spectroscopy. Journal of Raman Spectroscopy, 2016, 47, 391-394.	1.2	49
20	Green and facile microwave assisted synthesis of (metal-free) N-doped carbon quantum dots for catalytic applications. Ceramics International, 2019, 45, 17006-17013.	2.3	46
21	Diversity of Coxiella-like and Francisella-like endosymbionts, and Rickettsia spp., Coxiella burnetii as pathogens in the tick populations of Slovakia, Central Europe. Ticks and Tick-borne Diseases, 2018, 9, 1207-1211.	1.1	44
22	Preparation of Functionalized Graphene Sheets. Current Organic Chemistry, 2011, 15, 1133-1150.	0.9	42
23	Electrically Conductive, Transparent Polymeric Nanocomposites Modified by 2D Ti3C2Tx (MXene). Polymers, 2019, 11, 1272.	2.0	40
24	Novel Hybrid PETG Composites for 3D Printing. Applied Sciences (Switzerland), 2020, 10, 3062.	1.3	40
25	Graphene oxide size and structure pro-oxidant and antioxidant activity and photoinduced cytotoxicity relation on three cancer cell lines. Journal of Photochemistry and Photobiology B: Biology, 2019, 200, 111647.	1.7	39
26	Structure and properties of nanocomposites based on PTT-block-PTMO copolymer and graphene oxide prepared by in situ polymerization. European Polymer Journal, 2014, 50, 69-77.	2.6	38
27	Graphene quantum dots inhibit T cell-mediated neuroinflammation in rats. Neuropharmacology, 2019, 146, 95-108.	2.0	38
28	Graphene oxide reduction during surface-initiated atom transfer radical polymerization of glycidyl methacrylate: Controlling electro-responsive properties. Chemical Engineering Journal, 2016, 283, 717-720.	6.6	36
29	Positive influence of expanded graphite on the physical behavior of phase change materials based on linear low-density polyethylene and paraffin wax. Thermochimica Acta, 2015, 614, 218-225.	1.2	35
30	Size effects of graphene nanoplatelets on the properties of high-density polyethylene nanocomposites: morphological, thermal, electrical, and mechanical characterization. Beilstein Journal of Nanotechnology, 2020, 11, 167-179.	1.5	35
31	A tertiary amine in two competitive processes: reduction of graphene oxide vs. catalysis of atom transfer radical polymerization. RSC Advances, 2015, 5, 3370-3376.	1.7	32
32	Antibacterial potential of electrochemically exfoliated graphene sheets. Journal of Colloid and Interface Science, 2017, 500, 30-43.	5.0	31
33	Ambient light induced antibacterial action of curcumin/graphene nanomesh hybrids. RSC Advances, 2017, 7, 36081-36092.	1.7	31
34	Effect of Nanodiamond Particles on Properties of Epoxy Composites. Advanced Composites Letters, 2008, 17, 096369350801700.	1.3	30
35	Semi-transparent, conductive thin films of electrochemical exfoliated graphene. RSC Advances, 2016, 6, 39275-39283.	1.7	29
36	Photoactive and antioxidant nanochitosan dots/biocellulose hydrogels for wound healing treatment. Materials Science and Engineering C, 2021, 122, 111925.	3.8	26

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37	Elastic moduli of highly stretched tie molecules in solid polyethylene. Polymer, 2003, 44, 1603-1611.	1.8	22
38	Fast low-temperature plasma reduction of monolayer graphene oxide at atmospheric pressure. Nanotechnology, 2017, 28, 145601.	1.3	22
39	Antibacterial photodynamic activity of hydrophobic carbon quantum dots and polycaprolactone based nanocomposite processed via both electrospinning and solvent casting method. Photodiagnosis and Photodynamic Therapy, 2021, 35, 102455.	1.3	22
40	Antibacterial Electrospun Polycaprolactone Nanofibers Reinforced by Halloysite Nanotubes for Tissue Engineering. Polymers, 2022, 14, 746.	2.0	22
41	Thermoplastic Starchâ€“Based Composite Reinforced by Conductive Filler Networks: Physical Properties and Electrical Conductivity Changes during Cyclic Deformation. Polymers, 2021, 13, 3819.	2.0	21
42	Effect of exfoliated graphite nanoplateletsâ€™ size on the phase structure, electrical, and barrier properties of poly(trimethylene terephthalate)-based nanocomposites. Polymer Engineering and Science, 2015, 55, 2222-2230.	1.5	20
43	Structural, mechanical, and antibacterial features of curcumin/polyurethane nanocomposites. Journal of Applied Polymer Science, 2019, 136, 47283.	1.3	19
44	Oxygen Barrier Properties and Melt Crystallization Behavior of Poly(ethylene) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 462 Td (terephthalat	1.5	17
45	A Multifunctional Graphene Oxide Platform for Targeting Cancer. Cancers, 2019, 11, 753.	1.7	17
46	Influence of expanded graphite (EG) and graphene oxide (GO) on physical properties of PET based nanocomposites. Polish Journal of Chemical Technology, 2014, 16, 45-50.	0.3	16
47	Electrically conductive composites based on an elastomeric matrix filled with expanded graphite as a potential oil sensing material. Smart Materials and Structures, 2014, 23, 125020.	1.8	15
48	Effect of Graphene Oxide on Structure and Properties of Impact-Modified Polyamide 6. Polymer-Plastics Technology and Engineering, 2018, 57, 827-835.	1.9	15
49	Enhanced visible light-triggered antibacterial activity of carbon quantum dots/polyurethane nanocomposites by gamma rays induced pre-treatment. Radiation Physics and Chemistry, 2021, 185, 109499.	1.4	15
50	Dynamic Mechanical and Dielectric Properties of Ethylene Vinyl Acetate/Carbon Nanotube Composites. Journal of Macromolecular Science - Physics, 2014, 53, 496-512.	0.4	13
51	Effects of low gamma irradiation dose on the photoluminescence properties of graphene quantum dots. Optical and Quantum Electronics, 2016, 48, 1.	1.5	13
52	c-Jun N-terminal kinase-dependent apoptotic photocytotoxicity of solvent exchange-prepared curcumin nanoparticles. Biomedical Microdevices, 2016, 18, 37.	1.4	13
53	Polyolefin in Packaging and Food Industry. Springer Series on Polymer and Composite Materials, 2016, , 181-199.	0.5	13
54	Electrical transport properties of poly(aniline-co-p-phenylenediamine) and its composites with incorporated silver particles. Chemical Papers, 2013, 67, .	1.0	12

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55	Investigation of beech wood modified by radio-frequency discharge plasma. Vacuum, 2015, 119, 88-94.	1.6	12
56	Superhydrophobic Polyester/Cotton Fabrics Modified by Barrier Discharge Plasma and Organosilanes. Polymer-Plastics Technology and Engineering, 2018, 57, 440-448.	1.9	12
57	Energetics of Stretching of Conformational Defects in Extended Poly(methylene) Chains. Macromolecular Theory and Simulations, 2001, 10, 833-841.	0.6	11
58	Relationship between conductivity and stressâ€“strain curve of electroconductive composite with SBR or polycaprolactone matrices. European Polymer Journal, 2014, 55, 135-143.	2.6	11
59	Charge transport and dielectric relaxation processes in aniline-based oligomers. Synthetic Metals, 2014, 192, 37-42.	2.1	11
60	Toward Apparent Negative Permittivity Measurement in a Magnetic Nanofluid with Electrically Induced Clusters. Physical Review Applied, 2019, 11, .	1.5	11
61	Bactericidal and antioxidant bacterial cellulose hydrogels doped with chitosan as potential urinary tract infection biomedical agent. RSC Advances, 2021, 11, 8559-8568.	1.7	11
62	Gamma ray assisted modification of carbon quantum dot/polyurethane nanocomposites: structural, mechanical and photocatalytic study. RSC Advances, 2019, 9, 6278-6286.	1.7	10
63	Photodynamic-active smart biocompatible material for an antibacterial surface coating. Journal of Photochemistry and Photobiology B: Biology, 2020, 211, 112012.	1.7	10
64	Energy Elasticity of Tie Molecules in Semicrystalline Polymers. Macromolecular Theory and Simulations, 2002, 11, 513.	0.6	9
65	Elastic Properties of Poly(hydroxybutyrate) Molecules. Macromolecular Bioscience, 2004, 4, 601-609.	2.1	9
66	Morphological, electrical, mechanical and thermal properties of high-density polyethylene/multiwall carbon nanotube nanocomposites: effect of aspect ratio. Materials Research Express, 2019, 6, 095079.	0.8	8
67	Properties and structure of poly(3-hydroxybutyrate-co-4-hydroxybutyrate) filaments for fused deposition modelling. International Journal of Biological Macromolecules, 2021, 183, 880-889.	3.6	8
68	Influence of preparation methods on the electrical and nanomechanical properties of poly(methyl) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 132, .	1.3	7
69	Electrical and Mechanical Properties of Ethylene Vinyl Acetate Based Composites. Materials Science Forum, 0, 714, 193-199.	0.3	6
70	Light-Induced Actuation of Poly(dimethylsiloxane) Filled with Graphene Oxide Grafted with Poly(2-(trimethylsilyloxy)ethyl Methacrylate). Polymers, 2018, 10, 1059.	2.0	6
71	Fabrication of flexible electrically conductive polymer-based micropatterns using plasma discharge. Sensors and Actuators A: Physical, 2020, 301, 111727.	2.0	6
72	Towards Improving the Durability and Overall Performance of PV-ETICS by Application of a PCM Layer. Applied Sciences (Switzerland), 2021, 11, 4667.	1.3	6

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73	Assessment of the Antibacterial Behavior of Polyester Fabric Pre-treated with Atmospheric Discharge Plasma. Fibers and Polymers, 2019, 20, 1649-1657.	1.1	5
74	Dielectric Spectroscopy and Tunability of Multi-Walled Carbon Nanotube / Epoxy Resin Composites. Advanced Composites Letters, 2010, 19, 096369351001900.	1.3	4
75	Self-standing elastomeric composites based on lithium ferrites and their dielectric behavior. Journal of Applied Physics, 2014, 116, 224102.	1.1	4
76	Mechanical and Electrical Properties of Styrene-Isoprene-Styrene Copolymer Doped with Expanded Graphite Nanoplatelets. Journal of Nanomaterials, 2015, 2015, 1-9.	1.5	4
77	Simple route for the preparation of graphene/poly(styreneâ€bâ€butadieneâ€bâ€styrene) nanocomposite films with enhanced electrical conductivity and hydrophobicity. Polymer International, 2018, 67, 1118-1127.	1.6	4
78	Electrospun Copolyamide Mats Modified by Functionalized Multiwall Carbon Nanotubes. Polymer Composites, 2019, 40, E1451-E1460.	2.3	4
79	Increasing the effectivity of the antimicrobial surface of carbon quantum dots-based nanocomposite by atmospheric pressure plasma. Clinical Plasma Medicine, 2020, 19-20, 100111.	3.2	4
80	Photoactive graphene quantum dots/bacterial cellulose hydrogels: Structural, mechanical, and proâ€oxidant study. Journal of Applied Polymer Science, 2022, 139, 51996.	1.3	4
81	Electrically Conductive Electrospun Polymeric Mats for Sensing Dispersed Vegetable Oil Impurities in Wastewater. Processes, 2019, 7, 906.	1.3	3
82	Effect of addition of expanded graphite (EG) on the synthesis and characteristics of poly(ethylene) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50	0.4	3
83	Low-cost light-induced therapy to treat rickettsial infection. Photodiagnosis and Photodynamic Therapy, 2018, 24, 150-152.	1.3	2
84			