

Vladimir Sedlarik

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

102 papers	1,448 citations	22 h-index	32 g-index
107 ext. papers	1,746 ext. citations	4.1 avg, IF	4.78 L-index

#	Paper	IF	Citations
102	Antibacterial poly(vinyl alcohol) film containing silver nanoparticles: Preparation and characterization. <i>Journal of Applied Polymer Science</i> , 2008 , 110, 3178-3185	2.9	87
101	An in vitro bacterial adhesion assessment of surface-modified medical-grade PVC. <i>Colloids and Surfaces B: Biointerfaces</i> , 2010 , 77, 246-56	6	63
100	Construction of antibacterial poly(ethylene terephthalate) films via layer by layer assembly of chitosan and hyaluronic acid. <i>Carbohydrate Polymers</i> , 2016 , 143, 35-43	10.3	56
99	Amphiphilic chitosan-grafted-functionalized polylactic acid based nanoparticles as a delivery system for doxorubicin and temozolomide co-therapy. <i>International Journal of Pharmaceutics</i> , 2014 , 474, 134-45	6.5	53
98	Efficient Cu ²⁺ , Pb ²⁺ and Ni ²⁺ ion removal from wastewater using electrospun DTPA-modified chitosan/polyethylene oxide nanofibers. <i>Separation and Purification Technology</i> , 2020 , 247, 116914	8.3	52
97	Changes of physical properties of PLA-based blends during early stage of biodegradation in compost. <i>International Journal of Biological Macromolecules</i> , 2018 , 113, 434-442	7.9	51
96	A Physicochemical Approach to Render Antibacterial Surfaces on Plasma-Treated Medical-Grade PVC: Irgasan Coating. <i>Plasma Processes and Polymers</i> , 2010 , 7, 504-514	3.4	46
95	Carbodiimide additive to control hydrolytic stability and biodegradability of PLA. <i>Polymer Testing</i> , 2016 , 54, 19-28	4.5	40
94	Effect of Compatibilizing Agent on the Properties of Highly Crystalline Composites Based on Poly(lactic acid) and Wood Flour and/or Mica. <i>Journal of Polymers and the Environment</i> , 2011 , 19, 372-384	4.5	37
93	Low molecular weight poly(lactic acid) microparticles for controlled release of the herbicide metazachlor: preparation, morphology, and release kinetics. <i>Journal of Agricultural and Food Chemistry</i> , 2012 , 60, 4111-9	5.7	36
92	Characterization of polymeric biocomposite based on poly(vinyl alcohol) and poly(vinyl pyrrolidone). <i>Polymer Composites</i> , 2006 , 27, 147-152	3	36
91	Application of extremely non-equilibrium plasmas in the processing of nano and biomedical materials. <i>Plasma Sources Science and Technology</i> , 2015 , 24, 015026	3.5	31
90	Antibacterial Films Based on PVA and PVA-Chitosan Modified with Poly(Hexamethylene Guanidine). <i>Polymers</i> , 2019 , 11,	4.5	31
89	Biodegradation of Blown Films Based on Poly(lactic acid) under Natural Conditions. <i>Macromolecular Symposia</i> , 2008 , 272, 100-103	0.8	29
88	The effect of preparation temperature on the mechanical and antibacterial properties of poly(vinyl alcohol)/silver nitrate films. <i>Polymer Degradation and Stability</i> , 2010 , 95, 399-404	4.7	28
87	Lignin and starch as potential inductors for biodegradation of films based on poly(vinyl alcohol) and protein hydrolysate. <i>Polymer Degradation and Stability</i> , 2010 , 95, 225-233	4.7	27
86	Organic-inorganic hybrid nanoparticles controlled delivery system for anticancer drugs. <i>International Journal of Pharmaceutics</i> , 2017 , 526, 380-390	6.5	26

85	Preparation and Characterization of Poly (vinyl alcohol)/Lactic Acid Compounded Polymeric Films. <i>International Journal of Polymer Analysis and Characterization</i> , 2006 , 11, 253-270	1.7	26
84	Recent advances in vacuum sciences and applications. <i>Journal Physics D: Applied Physics</i> , 2014 , 47, 153003		25
83	Degradation behaviour of PLA-based polyesterurethanes under abiotic and biotic environments. <i>Polymer Degradation and Stability</i> , 2016 , 129, 222-230	4.7	25
82	Chitosan grafted low molecular weight polylactic acid for protein encapsulation and burst effect reduction. <i>International Journal of Pharmaceutics</i> , 2015 , 496, 912-21	6.5	22
81	Novel aspects of the degradation process of PLA based bulky samples under conditions of high partial pressure of water vapour. <i>Polymer Degradation and Stability</i> , 2013 , 98, 150-157	4.7	22
80	Correlation of Morphology and Viscoelastic Properties of Partially Biodegradable Polymer Blends Based on Polyamide 6 and Polylactide Copolyester. <i>Polymer-Plastics Technology and Engineering</i> , 2012 , 51, 1432-1442		22
79	Chitosan-based nanocomplexes for simultaneous loading, burst reduction and controlled release of doxorubicin and 5-fluorouracil. <i>International Journal of Biological Macromolecules</i> , 2017 , 102, 613-624	7.9	21
78	Reprocessing of injection-molded magnetorheological elastomers based on TPE matrix. <i>Composites Part B: Engineering</i> , 2019 , 172, 253-261	10	21
77	Environmentally friendly biocomposites based on waste of the dairy industry and poly(vinyl alcohol). <i>Journal of Applied Polymer Science</i> , 2007 , 106, 1869-1879	2.9	21
76	Electromagnetic properties of aluminosilicate-filled polymer composites of poly(vinyl alcohol)/poly(vinyl pyrrolidone). <i>Polymer Composites</i> , 2005 , 26, 739-744	3	21
75	Properties enhancement of partially biodegradable polyamide/polylactide blends through compatibilization with novel polyalkenyl-poly-maleic-anhydride-amide/imide-based additives. <i>Journal of Reinforced Plastics and Composites</i> , 2012 , 31, 189-202	2.9	20
74	Effect of Phase Arrangement on Solid State Mechanical and Thermal Properties of Polyamide 6/Polylactide Based Co-polyester Blends. <i>Journal of Macromolecular Science - Physics</i> , 2012 , 51, 982-1001	1.4	19
73	Enhancement of temozolomide stability by loading in chitosan-carboxylated polylactide-based nanoparticles. <i>Journal of Nanoparticle Research</i> , 2017 , 19, 71	2.3	18
72	Functionalization of polylactic acid through direct melt polycondensation in the presence of tricarboxylic acid. <i>Journal of Applied Polymer Science</i> , 2011 , 122, 1275-1285	2.9	18
71	Structure-based design of charge-conversional drug self-delivery systems for better targeted cancer therapy. <i>Biomaterials</i> , 2020 , 232, 119701	15.6	18
70	Polysaccharide-based nanocomplexes for co-encapsulation and controlled release of 5-Fluorouracil and Temozolomide. <i>European Journal of Pharmaceutical Sciences</i> , 2016 , 92, 276-86	5.1	18
69	Characterization of Antibacterial Polymeric Films Based on Poly(vinyl alcohol) and Zinc Nitrate for Biomedical Applications. <i>International Journal of Polymer Analysis and Characterization</i> , 2008 , 13, 241-253	1.7	17
68	Modification of poly(vinyl alcohol) with lactose and calcium lactate: potential filler from dairy industry. <i>Plastics, Rubber and Composites</i> , 2006 , 35, 355-359	1.5	15

67	Effect of plasma treatment on the release kinetics of a chemotherapy drug from biodegradable polyester films and polyester urethane films. <i>International Journal of Polymeric Materials and Polymeric Biomaterials</i> , 2018 , 67, 161-173	3	14
66	Structure and conditioning effect on mechanical behavior of poly(vinyl alcohol)/calcium lactate biocomposites. <i>Polymer Composites</i> , 2009 , 30, 1158-1165	3	14
65	Thermal stability of bacteriocin nisin in polylactide-based films. <i>Polymer Degradation and Stability</i> , 2018 , 158, 31-39	4.7	14
64	Stabilization of chitosan-based polyelectrolyte nanoparticle cargo delivery biomaterials by a multiple ionic cross-linking strategy. <i>Carbohydrate Polymers</i> , 2020 , 231, 115709	10.3	13
63	Chitosan-collagen based film for controlled delivery of a combination of short life anesthetics. <i>International Journal of Biological Macromolecules</i> , 2019 , 140, 1183-1193	7.9	12
62	Polysaccharides based microspheres for multiple encapsulations and simultaneous release of proteases. <i>International Journal of Biological Macromolecules</i> , 2019 , 132, 24-31	7.9	12
61	Lactose-filled composites of metallocene linear low-density polyethylene and their degradation in the composting environment. <i>Polymer Degradation and Stability</i> , 2006 , 91, 2039-2045	4.7	12
60	Group 4 Metal Complexes of Chelating Cyclopentadienyl-ketimide Ligands. <i>Organometallics</i> , 2016 , 35, 785-798	3.8	10
59	Characterization of structural and physical properties of dichloromethane- and methanol-fractionated Kraft lignin and its adsorption capacity of Cu (II) and Ni (II) ions. <i>Desalination and Water Treatment</i> , 2016 , 57, 10655-10663		10
58	Effect of 4,4'-methylenediphenyl diisocyanate on thermal and mechanical properties of Bioflex/lactic acid polycondensate blends. <i>Asia-Pacific Journal of Chemical Engineering</i> , 2012 , 7, S317-S323	1.3	10
57	Folic acid-chitosan-alginate nanocomplexes for multiple delivery of chemotherapeutic agents. <i>Journal of Drug Delivery Science and Technology</i> , 2018 , 47, 67-76	4.5	10
56	Enhancement of 5-aminolevulinic acid phototoxicity by encapsulation in polysaccharides based nanocomplexes for photodynamic therapy application. <i>Journal of Photochemistry and Photobiology B: Biology</i> , 2017 , 175, 226-234	6.7	9
55	Ecofriendly renewable hydrogels based on whey protein and for slow release of fertilizers and soil conditioning. <i>Journal of Cleaner Production</i> , 2021 , 285, 124848	10.3	9
54	Combination of phosphonium and ammonium pendant groups in cationic conjugated polyelectrolytes based on regioregular poly(3-hexylthiophene) polymer chains. <i>European Polymer Journal</i> , 2018 , 100, 200-208	5.2	8
53	Novel poly(lactic acid)-poly(ethylene oxide) chain-linked copolymer and its application in nano-encapsulation. <i>Polymers for Advanced Technologies</i> , 2014 , 25, 595-604	3.2	8
52	Antimicrobial Silver Nitrate-doped Polyvinyl Chloride Cast Films: Influence of Solvent on Morphology and Mechanical Properties. <i>International Journal of Polymeric Materials and Polymeric Biomaterials</i> , 2013 , 62, 101-108	3	8
51	The Effect of Various Catalytic Systems on Solid-State Polymerization of Poly-(L-lactic acid). <i>Journal of Macromolecular Science - Pure and Applied Chemistry</i> , 2012 , 49, 795-805	2.2	8
50	Isolation and Thermal Stabilization of Bacteriocin Nisin Derived from Whey for Antimicrobial Modifications of Polymers. <i>International Journal of Polymer Science</i> , 2017 , 2017, 1-7	2.4	7

49	A Novel Hydrogel Based on Renewable Materials for Agricultural Application. <i>International Journal of Polymer Science</i> , 2020 , 2020, 1-13	2.4	7
48	Immobilization of bacteriocin nisin into a poly(vinyl alcohol) polymer matrix crosslinked with nontoxic dicarboxylic acid. <i>Journal of Applied Polymer Science</i> , 2016 , 133,	2.9	7
47	Effect of polyethylene glycol plasticizer on long-term antibacterial activity and the release profile of bacteriocin nisin from polylactide blends. <i>Polymers for Advanced Technologies</i> , 2018 , 29, 2253-2263	3.2	7
46	Enhancement of the antioxidant activity and stability of β -carotene using amphiphilic chitosan/nucleic acid polyplexes. <i>International Journal of Biological Macromolecules</i> , 2018 , 117, 773-780	7.9	7
45	Non-toxic polyester urethanes based on poly(lactic acid), poly(ethylene glycol) and lysine diisocyanate. <i>Journal of Bioactive and Compatible Polymers</i> , 2017 , 32, 225-241	2	6
44	Core-shell PLA-PVA porous microparticles as carriers for bacteriocin nisin. <i>Journal of Microencapsulation</i> , 2017 , 34, 243-249	3.4	6
43	Influence of gamma rays on the physico-chemical, release and antibacterial characteristics of low-density polyethylene composite films incorporating an essential oil for application in food-packaging. <i>Food Packaging and Shelf Life</i> , 2019 , 19, 131-139	8.2	6
42	Microspheres of essential oil in polylactic acid and poly(methyl methacrylate) matrices and their blends. <i>Journal of Microencapsulation</i> , 2019 , 36, 305-316	3.4	6
41	Plastic waste minimization: Compatibilization of polypropylene/polyamide 6 blends by polyalkenyl-poly-maleic-anhydride-based agents. <i>Journal of Applied Polymer Science</i> , 2013 , 129, 3028-3037	3.9	6
40	Characterization of Antibacterial, Mechanical, and Structural Properties of Polyvinyl Chloride/Silver Nitrate Composites Prepared by Thermoplastic Compounding. <i>International Journal of Polymer Analysis and Characterization</i> , 2010 , 15, 360-369	1.7	6
39	Versatile synthesis of comb-shaped poly(lactic acid) copolymers with poly(acrylic acid)-based backbones and carboxylic acid end groups. <i>Reactive and Functional Polymers</i> , 2017 , 111, 79-87	4.6	5
38	The effect of hydrolysis degree on the properties of antibacterial polymeric films based on poly(vinyl alcohol) and zinc sulphate for biomedical applications. <i>Journal of Biomaterials Science, Polymer Edition</i> , 2010 , 21, 1421-40	3.5	5
37	Multidrug delivery system based on polysaccharide nanocomplexes for controlled delivery of a combination of chemotherapeutics. <i>Journal of Drug Delivery Science and Technology</i> , 2019 , 50, 90-98	4.5	5
36	Biodegradable Films of PLA/PPC and Curcumin as Packaging Materials and Smart Indicators of Food Spoilage.. <i>ACS Applied Materials & Interfaces</i> , 2022 ,	9.5	5
35	Flexible polyvinyl alcohol/2-hydroxypropanoic acid films: effect of residual acetyl moieties on mechanical, thermal and antibacterial properties. <i>Journal of Polymer Engineering</i> , 2015 , 35, 319-327	1.4	4
34	Production of Acrylonitrile Butadiene Styrene/High-Density Polyethylene Composites from Waste Sources by Using Coupling Agents. <i>Mechanics of Composite Materials</i> , 2014 , 50, 377-386	1.1	4
33	Antibacterial polymer composites based on low-density polyethylene and essential oils immobilized on various solid carriers. <i>Journal of Applied Polymer Science</i> , 2015 , 132,	2.9	4
32	Influence of natural inorganic impurity on the synthesis of poly(L-lactic acid), properties and nanofabrication. <i>Journal of Applied Polymer Science</i> , 2013 , 130, 63-69	2.9	4

31	Thermoplastic modification of medical grade polyvinyl chloride with various antibiotics: effect of antibiotic chemical structure on mechanical, antibacterial properties, and release activity. <i>Polymer Bulletin</i> , 2011 , 67, 997-1016	2.4	4
30	Nanoparticle-Based Rifampicin Delivery System Development. <i>Molecules</i> , 2021 , 26,	4.8	4
29	Synthesis and characterization of star-shaped carboxyl group functionalized poly(lactic acid) through polycondensation reaction. <i>Macromolecular Research</i> , 2017 , 25, 180-189	1.9	3
28	Effect of the configuration of poly(lactic acid) and content of poly(oxyethylene) blocks to the structure and functional properties of poly(lactic acid)-block-poly(oxirane)-based nanofibrous electrospun polyester-ether-urethanes used as potential drug-delivery system. <i>Journal of Biomedical Materials Research - Part B Applied Biomaterials</i> , 2019 , 107, 2376-2387	3.5	3
27	Microcellular antibacterial polylactide-based systems prepared by additive extrusion with ALUM. <i>Polymers for Advanced Technologies</i> , 2019 , 30, 2100-2108	3.2	3
26	Enhancement of the Mechanical Properties of a Polylactic Acid/Flax Fiber Biocomposite by WPU, WPU/Starch, and TPS Polyurethanes Using Coupling Additives. <i>Mechanics of Composite Materials</i> , 2018 , 53, 791-800	1.1	3
25	Antibacterial polyvinyl chloride/antibiotic films: The effect of solvent on morphology, antibacterial activity, and release kinetics. <i>Journal of Applied Polymer Science</i> , 2010 , 118, n/a-n/a	2.9	3
24	Effect of wood flour loading and thermal annealing on viscoelastic properties of poly(lactic acid) composite films. <i>Journal of Applied Polymer Science</i> , 2010 , 118, n/a-n/a	2.9	3
23	Influence of Polylactide Modification with Blowing Agents on Selected Mechanical Properties. <i>Advances in Science and Technology Research Journal</i> , 2017 , 11, 206-214	2.1	3
22	Immobilization of Caraway Essential Oil in a Polypropylene Matrix for Antimicrobial Modification of a Polymeric Surface. <i>Polymers</i> , 2021 , 13,	4.5	3
21	Polymer Labelling with a Conjugated Polymer-Based Luminescence Probe for Recycling in the Circular Economy. <i>Polymers</i> , 2020 , 12,	4.5	2
20	A Rapid and Sensitive HPLC Method for Simultaneous Determination of Irinotecan Hydrochloride and Curcumin in Co-delivered Polymeric Nanoparticles. <i>Journal of Chromatographic Science</i> , 2020 , 58, 651-660	1.4	2
19	Effect of a Hybrid Zinc Stearate-Silver System on the Properties of Polylactide and Its Abiotic and the Biotic Degradation and Antimicrobial Activity Thereof. <i>Chinese Journal of Polymer Science (English Edition)</i> , 2018 , 36, 925-933	3.5	2
18	Branched poly (lactic acid) microparticles for enhancing the 5-aminolevulinic acid phototoxicity. <i>Journal of Photochemistry and Photobiology B: Biology</i> , 2018 , 181, 80-88	6.7	2
17	Synthesis of poly(sebacic anhydride): effect of various catalysts on structure and thermal properties. <i>Journal of Polymer Research</i> , 2014 , 21, 1	2.7	2
16	Antimicrobial modification of polypropylene with silver nanoparticles immobilized on zinc stearate. <i>Materiali in Tehnologije</i> , 2016 , 50, 869-871	1.6	2
15	The adsorption, kinetics, and interaction mechanisms of various types of estrogen on electrospun polymeric nanofiber membranes. <i>Nanotechnology</i> , 2021 , 33,	3.4	2
14	Polylactide/Polyvinylalcohol-Based Porous Bioscaffold Loaded with Gentamicin for Wound Dressing Applications. <i>Polymers</i> , 2021 , 13,	4.5	2

13	Electrospun polyurethane membrane with Ag/ZnO microparticles as an antibacterial surface on polyurethane sheets. <i>Journal of Applied Polymer Science</i> , 2016 , 133, n/a-n/a	2.9	2
12	Self-assembled Camptothecin derivatives - Curcuminoids conjugate for combinatorial chemo-photodynamic therapy to enhance anti-tumor efficacy. <i>Journal of Photochemistry and Photobiology B: Biology</i> , 2021 , 215, 112124	6.7	2
11	Biopolymer Hydrogel Based on Acid Whey and Cellulose Derivatives for Enhancement Water Retention Capacity of Soil and Slow Release of Fertilizers. <i>Polymers</i> , 2021 , 13,	4.5	2
10	Linear polyurethanes with imidazoquinazoline rings: preparation and properties evaluation. <i>Polymer Bulletin</i> , 2019 , 76, 6343-6370	2.4	1
9	Localization of Poly(glycidyl methacrylate) Grafted on Reduced Graphene Oxide in Poly(lactic acid)/Poly(trimethylene terephthalate) Blends for Composites with Enhanced Electrical and Thermal Conductivities. <i>ACS Applied Nano Materials</i> , 2021 , 4, 8511-8519	5.6	1
8	Encapsulation of Amikacin into Microparticles Based on Low-Molecular-Weight Poly(lactic acid) and Poly(lactic acid-polyethylene glycol). <i>Molecular Pharmaceutics</i> , 2021 , 18, 2986-2996	5.6	1
7	Effect of Sodium Salicylate on the Viscoelastic Properties and Stability of Polyacrylate-Based Hydrogels for Medical Applications. <i>International Journal of Polymer Science</i> , 2016 , 2016, 1-6	2.4	1
6	Effect of an Antioxidant Based on Red Beetroot Extract on the Abiotic Stability of Polylactide and Polycaprolactone. <i>Molecules</i> , 2021 , 26,	4.8	1
5	Eco-friendly whey/polysaccharide-based hydrogel with poly(lactic acid) for improvement of agricultural soil quality and plant growth.. <i>International Journal of Biological Macromolecules</i> , 2022 ,	7.9	1
4	Electrospun polyurethane nanofibers coated with polyaniline/polyvinyl alcohol as ultrafiltration membranes for the removal of ethinylestradiol hormone micropollutant from aqueous phase. <i>Journal of Environmental Chemical Engineering</i> , 2022 , 10, 107811	6.8	1
3	The Synergic Effect of Whey-Based Hydrogel Amendment on Soil Water Holding Capacity and Availability of Nutrients for More Efficient Valorization of Dairy By-Products. <i>Sustainability</i> , 2021 , 13, 10701	3.6	0
2	Copolymer of natural fibre reinforced polyester urethane: effect on physico-chemical properties through modification to interfacial adhesion. <i>Journal of Polymer Engineering</i> , 2016 , 36, 189-197	1.4	
1	Investigation of arsenic removal from aqueous solution through selective sorption and nanofiber-based filters.. <i>Journal of Environmental Health Science & Engineering</i> , 2021 , 19, 1347-1360	2.9	