

# Piotr Ulanski

## List of Publications by Year in descending order

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86  
papers

3,400  
citations

147801

31  
h-index

149698

56  
g-index

87  
all docs

87  
docs citations

87  
times ranked

2780  
citing authors

#	ARTICLE	IF	CITATIONS
1	Degradation of chitosan and starch by 360-kHz ultrasound. Carbohydrate Polymers, 2005, 60, 175-184.	10.2	330
2	Synthesis of hydrogels by irradiation of polymers in aqueous solution. Radiation Physics and Chemistry, 1999, 55, 139-151.	2.8	308
3	Radiation formation of hydrogels for biomedical purposes. Some remarks and comments. Radiation Physics and Chemistry, 1995, 46, 161-168.	2.8	204
4	Polymerization Reactions and Modifications of Polymers by Ionizing Radiation. Polymers, 2020, 12, 2877.	4.5	178
5	Melatonin as a hydroxyl radical scavenger. Journal of Pineal Research, 1998, 25, 65-66.	7.4	168
6	OH-radical-induced crosslinking and strand breakage of poly(vinyl alcohol) in aqueous solution in the absence and presence of oxygen. A pulse radiolysis and product study. Macromolecular Chemistry and Physics, 1994, 195, 1443-1461.	2.2	110
7	Radiation formation of polymeric nanogels. Radiation Physics and Chemistry, 1998, 52, 289-294.	2.8	103
8	Synthesis of poly(acrylic acid) nanogels by preparative pulse radiolysis. Radiation Physics and Chemistry, 2002, 63, 533-537.	2.8	80
9	Chitosan-containing hydrogel wound dressings prepared by radiation technique. Radiation Physics and Chemistry, 2017, 134, 1-7.	2.8	80
10	The use of radiation technique in the synthesis of polymeric nanogels. Nuclear Instruments & Methods in Physics Research B, 1999, 151, 356-360.	1.4	77
11	Pulses of Fast Electrons as a Tool To Synthesize Poly(acrylic acid) Nanogels. Intramolecular Cross-Linking of Linear Polymer Chains in Additive-Free Aqueous Solution. Macromolecules, 2003, 36, 2484-2492.	4.8	73
12	OH-Radical-induced chain scission of chitosan in the absence and presence of dioxygen. Perkin Transactions II RSC, 2000, , 2022-2028.	1.1	67
13	Radiation-induced and sonochemical degradation of chitosan as a way to increase its fat-binding capacity. Nuclear Instruments & Methods in Physics Research B, 2005, 236, 383-390.	1.4	64
14	Pulse radiolysis in model studies toward radiation processing. Radiation Physics and Chemistry, 1995, 46, 527-532.	2.8	55
15	Radiation-induced cross-linking of polyvinylpyrrolidone-poly(acrylic acid) complexes. Nuclear Instruments & Methods in Physics Research B, 2005, 236, 391-398.	1.4	52
16	Hydroxyl-radical-induced reactions of poly(acrylic acid); a pulse radiolysis, EPR and product study. Part I. Deoxygenated aqueous solutions. Journal of the Chemical Society Perkin Transactions II, 1996, , 13.	0.9	51
17	Nano-, micro- and macroscopic hydrogels synthesized by radiation technique. Nuclear Instruments & Methods in Physics Research B, 2003, 208, 325-330.	1.4	48
18	Hydrogels for biomedical purposes. Nuclear Instruments & Methods in Physics Research B, 1995, 105, 335-339.	1.4	47

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19	Pulsed electron beam irradiation of dilute aqueous poly(vinyl methyl ether) solutions. <i>Polymer</i> , 2005, 46, 9908-9918.	3.8	46
20	Poly( $\epsilon$ -caprolactone) Biomaterial Sterilized by E-Beam Irradiation. <i>Macromolecular Bioscience</i> , 2006, 6, 261-273.	4.1	45
21	Hydrogels of polyvinylpyrrolidone (PVP) and poly(acrylic acid) (PAA) synthesized by photoinduced crosslinking of homopolymers. <i>Polymer</i> , 2007, 48, 4974-4981.	3.8	45
22	Radiation synthesis of biocompatible hydrogels of dextran methacrylate. <i>Radiation Physics and Chemistry</i> , 2018, 142, 115-120.	2.8	45
23	Radiation-induced degradation and crosslinking of poly(ethylene oxide) in solid state. <i>Journal of Radioanalytical and Nuclear Chemistry</i> , 2002, 253, 339-344.	1.5	41
24	Radiation sterilization of chitosan sealant for vascular prostheses. <i>Journal of Radioanalytical and Nuclear Chemistry</i> , 1992, 159, 87-96.	1.5	39
25	Hydroxyl radical-induced crosslinking and radiation-initiated hydrogel formation in dilute aqueous solutions of carboxymethylcellulose. <i>Carbohydrate Polymers</i> , 2014, 112, 412-415.	10.2	38
26	Pulse radiolysis of poly(ethylene oxide) in aqueous solution. II. Decay of macroradicals. <i>Radiation Physics and Chemistry</i> , 1995, 46, 917-920.	2.8	37
27	Radiation-induced synthesis of poly(acrylic acid) nanogels. <i>Radiation Physics and Chemistry</i> , 2018, 142, 125-129.	2.8	37
28	The OH radical-induced chain reactions of methanol with hydrogen peroxide and with peroxydisulfate. <i>Journal of the Chemical Society Perkin Transactions II</i> , 1999, , 165-168.	0.9	36
29	Radical transfer reactions in polymers. <i>Radiation Physics and Chemistry</i> , 1999, 55, 599-603.	2.8	35
30	Controlling of Degradation Effects in Radiation Processing of Starch. <i>Journal of Macromolecular Science - Pure and Applied Chemistry</i> , 2007, 44, 865-875.	2.2	34
31	Hydroxyl-radical-induced reactions of poly (acrylic acid); a pulse radiolysis, EPR and product study. Part II. Oxygenated aqueous solutions. <i>Journal of the Chemical Society Perkin Transactions II</i> , 1996, , 23.	0.9	33
32	Reactions of melatonin with radicals in deoxygenated aqueous solution. <i>Journal of Radioanalytical and Nuclear Chemistry</i> , 1998, 232, 107-113.	1.5	33
33	Radiation-synthesized protein-based drug carriers: Size-controlled BSA nanoparticles. <i>International Journal of Biological Macromolecules</i> , 2016, 85, 82-91.	7.5	31
34	Hydroxyl-radical-induced reactions of poly(vinyl methyl ether): a pulse radiolysis, EPR and product study in deoxygenated and oxygenated aqueous solutions. <i>Perkin Transactions II RSC</i> , 2000, , 2041-2048.	1.1	30
35	Hydrogels of polyvinylpyrrolidone (PVP) and poly(acrylic acid) (PAA) synthesized by radiation-induced crosslinking of homopolymers. <i>Radiation Physics and Chemistry</i> , 2010, 79, 261-266.	2.8	30
36	Preliminary studies on radiation-induced changes in chitosan. <i>International Journal of Radiation Applications and Instrumentation Nuclear Tracks and Radiation Measurements</i> , 1992, 39, 53-57.	0.0	29

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37	Polymeric biomaterials synthesized by radiation techniques - current studies at IARC, Poland. <i>Polymers for Advanced Technologies</i> , 2002, 13, 951-959.	3.2	29
38	Synthesis, structural and mechanical properties of porous polymeric scaffolds for bone tissue regeneration based on neat poly( $\epsilon$ -caprolactone) and its composites with calcium carbonate. <i>Polymers for Advanced Technologies</i> , 2006, 17, 889-897.	3.2	29
39	Synthesis of tailored nanogels by means of two-stage irradiation. <i>Polymer</i> , 2012, 53, 1985-1991.	3.8	29
40	Radiolysis of poly(acrylic acid) in aqueous solution. <i>Radiation Physics and Chemistry</i> , 1995, 46, 909-912.	2.8	26
41	Pulse radiolysis of butyl acrylate in aqueous solution. <i>Radiation Physics and Chemistry</i> , 1998, 53, 403-409.	2.8	26
42	Hydroxyl-radical-induced reactions of the poly(vinyl methyl ether) model 2,4-dimethoxypentane in the absence and presence of dioxygen: a pulse radiolysis and product study. <i>Perkin Transactions II RSC</i> , 2000, , 2034-2040.	1.1	24
43	Interpolymer complexes of poly(acrylic acid) nanogels with some non-ionic polymers in aqueous solutions. <i>Colloids and Surfaces A: Physicochemical and Engineering Aspects</i> , 2004, 236, 141-146.	4.7	23
44	Monte Carlo Simulations of Nanogels Formation by Intramolecular Recombination of Radicals on Polymer Chain. Dispersive Kinetics Controlled by Chain Dynamics. <i>Macromolecules</i> , 2006, 39, 857-870.	4.8	23
45	Ultrasound-Induced Cross-Linking and Formation of Macroscopic Covalent Hydrogels in Aqueous Polymer and Monomer Solutions. <i>Macromolecules</i> , 2009, 42, 3269-3274.	4.8	23
46	Stability Constants and Decay of Aqua-Copper(III) – A Study by Pulse Radiolysis with Conductometric and Optical Detection. <i>European Journal of Inorganic Chemistry</i> , 2000, 2000, 1211-1217.	2.0	23
47	Pulse radiolysis of poly(acrylic acid) in deoxygenated aqueous solution. <i>Journal of Radioanalytical and Nuclear Chemistry</i> , 1994, 186, 315-324.	1.5	22
48	Free-Radical-Induced Chain Breakage and Depolymerization of Poly(methacrylic acid): Equilibrium Polymerization in Aqueous Solution at Room Temperature. <i>Chemistry - A European Journal</i> , 2000, 6, 3922-3934.	3.3	21
49	Radiolysis of the poly(acrylic acid) model 2,4-dimethylglutaric acid: a pulse radiolysis and product study. <i>Journal of the Chemical Society Perkin Transactions II</i> , 1996, , 5.	0.9	20
50	Lactide/trimethylene carbonate triblock copolymers: Controlled sequential polymerization and properties. <i>Polymer</i> , 2016, 87, 50-63.	3.8	20
51	Carboxymethylchitosan hydrogel manufactured by radiation-induced crosslinking as potential nerve regeneration guide scaffold. <i>Reactive and Functional Polymers</i> , 2020, 152, 104588.	4.1	20
52	Reaction of a low-molecular-weight free radical with a flexible polymer chain: Kinetic studies on the OH + poly( <i>N</i> -vinylpyrrolidone) model. <i>International Journal of Chemical Kinetics</i> , 2011, 43, 474-481.	1.6	19
53	Synthesis of hydrogels by radiation-induced cross-linking of Pluronic® F127 in N <sub>2</sub> O-saturated aqueous solution. <i>Polymers for Advanced Technologies</i> , 2006, 17, 804-813.	3.2	18
54	Thermally Conductive Shape Memory Polymer Composites Filled with Boron Nitride for Heat Management in Electrical Insulation. <i>Polymers</i> , 2021, 13, 2191.	4.5	18

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55	On the Mechanisms of the Effects of Ionizing Radiation on Diblock and Random Copolymers of Poly(Lactic Acid) and Poly(Trimethylene Carbonate). <i>Polymers</i> , 2018, 10, 672.	4.5	17
56	Pulse radiolysis of poly(vinyl methyl ether) in aqueous solution. Formation and structure of primary radicals. <i>Nuclear Instruments &amp; Methods in Physics Research B</i> , 1999, 151, 318-323.	1.4	15
57	Influence of electron beam irradiation on physicochemical properties of poly(trimethylene) Tj ETQq1 1 0.784314 rgBT /Overlock 10 Tf	5.8	14
58	Synthesis of papain nanoparticles by electron beam irradiation â; A pathway for controlled enzyme crosslinking. <i>International Journal of Biological Macromolecules</i> , 2016, 92, 654-659.	7.5	14
59	The Structure and Aggregation of Hydrogenâ€Boned Interpolymer Complexes of Poly(acrylic acid) With Poly(vinylpyrrolidone) in Dilute Aqueous Solution. <i>Macromolecular Chemistry and Physics</i> , 2011, 212, 2529-2540.	2.2	13
60	Thermoresponsive poly[tri(ethylene glycol) monoethyl ether methacrylate]-peptide surfaces obtained by radiation grafting-synthesis and characterisation. <i>Colloids and Surfaces B: Biointerfaces</i> , 2016, 145, 185-193.	5.0	13
61	The reaction of methyl radicals with hydrogen peroxide. <i>Journal of the Chemical Society Perkin Transactions II</i> , 1999, , 673-676.	0.9	12
62	Pulse radiolysis of polymers in aqueous solution. Kinetics study. <i>Journal De Chimie Physique Et De Physico-Chimie Biologique</i> , 1997, 94, 244-250.	0.2	12
63	Controlling the properties of radiation-synthesized thermoresponsive oligoether methacrylate hydrogels by varying the monomer side-chain length; self-composite network containing crystalline phase. <i>Polymer</i> , 2018, 150, 275-288.	3.8	11
64	OH radical induced depolymerization of poly(methacrylic acid). <i>Nuclear Instruments &amp; Methods in Physics Research B</i> , 1999, 151, 350-355.	1.4	10
65	Some aspects of the radiolysis of poly(methacrylic acid) in oxygen-free aqueous solution. <i>Radiation Physics and Chemistry</i> , 1999, 56, 467-474.	2.8	9
66	Diet supplement based on radiation-modified chitosan and radiation-synthesized polyvinylpyrrolidone microgels: Influence on the liver weight in rats fed a fat- and cholesterol-rich diet. <i>Journal of Applied Polymer Science</i> , 2007, 105, 169-176.	2.6	9
67	Determination of Propagation Rate Coefficient for the Polymerization of N-Vinylpyrrolidone in Aqueous Solution by Pulsed Electron Polymerization and Size Exclusion Chromatography. <i>ACS Macro Letters</i> , 2014, 3, 639-642.	4.8	9
68	Synthesis and Properties of Targeted Radioisotope Carriers Based on Poly(Acrylic Acid) Nanogels. <i>Pharmaceutics</i> , 2021, 13, 1240.	4.5	8
69	SYNTHESIS OF CHITOSAN AND CARBOXYMETHYL CHITOSAN HYDROGELS BY ELECTRON BEAM IRRADIATION. <i>Progress on Chemistry and Application of Chitin and Its Derivatives</i> , 2016, 21, 27-45.	0.1	7
70	Relaxation processes and intermolecular interactions in PVME hydrogels in sub-zero temperatures: Glass transition and pre-melting of ice. <i>Polymer</i> , 2012, 53, 161-168.	3.8	6
71	Radiation grafting of oligo(ethylene glycol) ethyl ether methacrylate on polypropylene. <i>Radiation Physics and Chemistry</i> , 2014, 94, 137-140.	2.8	6
72	Modification of polymers by ultrasound treatment in aqueous solution. <i>E-Polymers</i> , 2005, 5, .	3.0	5

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73	Recombination of Poly(Acrylic Acid) Radicals in Acidic Aqueous Solutions: A Pulse Radiolysis Study. Applied Sciences (Switzerland), 2021, 11, 10142.	2.5	5
74	Time-resolved investigations of pulse-initiated polymerization. Radiation Physics and Chemistry, 1998, 52, 389-393.	2.8	4
75	Studies on the spatial distribution of polymeric reagents in sonochemical reactions - application of competitive kinetics. Polimery, 2005, 50, 29-36.	0.7	4
76	On the Mechanism and Kinetics of Synthesizing Polymer Nanogels by Ionizing Radiation-Induced Intramolecular Crosslinking of Macromolecules. Pharmaceutics, 2021, 13, 1765.	4.5	4
77	Porous polymeric scaffolds for bone regeneration. E-Polymers, 2005, 5, .	3.0	3
78	A mechanistic approach towards the formation of bityrosine in proteins by ionizing radiation â€“ GYG model peptide. Radiation Physics and Chemistry, 2021, 188, 109644.	2.8	3
79	PREPARATION OF GOLD NANOPARTICLES STABILIZED BY CHITOSAN USING IRRADIATION AND SONICATION METHODS. Progress on Chemistry and Application of Chitin and Its Derivatives, 2015, XX, .	0.1	3
80	Radiation synthesis of poly(acrylic acid) nanogels for drug delivery applications â€“ post-synthesis product colloidal stability. Nukleonika, 2021, 66, 179-186.	0.8	3
81	Novel system for pulse radiolysis with multi-angle light scattering detection (PR-MALLS) â€“ concept, construction and first tests. Radiation Physics and Chemistry, 2018, 142, 9-13.	2.8	2
82	Amniotic Stem Cells Cultured on Thermoresponsive Polymers Allow Obtaining a Full Cell Sheet. Transplantation Proceedings, 2020, 52, 2198-2203.	0.6	2
83	Effect of irradiation on the physicochemical and biopharmaceutical properties of Temozolomide loaded carbon nanotubes. Makedonsko Farmaceutski Bilten, 2020, 66, 115-116.	0.0	2
84	IAEA Contribution to Nanosized Targeted Radiopharmaceuticals for Drug Delivery. Pharmaceutics, 2022, 14, 1060.	4.5	2
85	RADIATION CROSS-LINKED HYDROGEN-BONDED INTERPOLYMER COMPLEXES. , 2009, , 259-300.		0
86	Radiolytic synthesis of gold nanoparticles in HEMA-based hydrogels: Potentialities for imaging nanocomposites. Nukleonika, 2021, 66, 165-177.	0.8	0