Miloslav PekaÅ

List of Publications by Year
in descending order

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100	1,378	394421	414414
papers	citations	19	32
		h-index	g-index

110	110	110	1729
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Novel Hydrogel Material with Tailored Internal Architecture Modified by â€œBioâ€•Amphiphilic Componentsâ€”Design and Analysis by a Physico-Chemical Approach. Gels, 2022, 8, 115.	4.5	9
2	Gradient Hydrogelsâ€”Overview of Techniques Demonstrating the Existence of a Gradient. Polymers, 2022, 14, 866.	4.5	1
3	Diffusion of dyes in polyelectrolyte-surfactant hydrogels. RSC Advances, 2022, 12, 13242-13250.	3.6	1
4	Hyaluronan interactions with cationic surfactants â€“ Insights from fluorescence resonance energy transfer and anisotropy techniques. International Journal of Biological Macromolecules, 2022, 211, 107-115.	7.5	4
5	Calcium carbonate particles: synthesis, temperature and time influence on the size, shape, phase, and their impact on cell hydroxyapatite formation. Journal of Materials Chemistry B, 2021, 9, 8308-8320.	5.8	20
6	Non-Equilibrium Thermodynamics View on Kinetics of Autocatalytic Reactionsâ€”Two Illustrative Examples. Molecules, 2021, 26, 585.	3.8	2
7	Cholesterol Effect on Membrane Properties of Cationic Ion Pair Amphiphile Vesicles at Different Temperatures. Langmuir, 2021, 37, 2436-2444.	3.5	4
8	Polarity-Based Sequential Extraction as a Simple Tool to Reveal the Structural Complexity of Humic Acids. Agronomy, 2021, 11, 587.	3.0	7
9	Interactions between Cationic Ion Pair Amphiphile Vesicles and Hyaluronanâ€”A Physicochemical Study. Langmuir, 2021, 37, 8525-8533.	3.5	1
10	Thermodynamic Analysis of the Landolt-Type Autocatalytic System. Catalysts, 2021, 11, 1300.	3.5	0
11	TAILORING THE INTERNAL MICROSTRUCTURE OF THE HYDROGELS BASED ON POLY-HEMA TARGETED FOR DRUG DELIVERY SYSTEMS. , 2021, , .		0
12	Hyaluronan-Arginine Interactionsâ€”An Ultrasound and ITC Study. Polymers, 2020, 12, 2069.	4.5	7
13	Editorial: Biopolymer-Based Hydrogels â€“ Ubiquitous and Prospective Materials. Frontiers in Materials, 2020, 7, .	2.4	1
14	Study of cholesterolâ€™s effect on the properties of catanionic vesicular systems: Comparison of light-scattering results with ultrasonic and fluorescence spectroscopy. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2020, 607, 125526.	4.7	4
15	Thermodynamic Driving Forces and Chemical Reaction Fluxes; Reflections on the Steady State. Molecules, 2020, 25, 699.	3.8	6
16	Gradient Hydrogelsâ€”The State of the Art in Preparation Methods. Polymers, 2020, 12, 966.	4.5	17
17	Hysteresis during heating and cooling of hyaluronan solutions in water observed by means of ultrasound velocimetry. International Journal of Biological Macromolecules, 2020, 165, 2419-2424.	7.5	4
18	The study of the hydrogel systems with micellar nanodomains and the effect of the ph changes on their properties. , 2020, , .		0

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19	Study on viscoelastic properties of phase-separated hydrogels by time-temperature superposition principle. AIP Conference Proceedings, 2019, , .	0.4	0
20	A simple technique for assessing the cuticular diffusion of humic acid biostimulants. Plant Methods, 2019, 15, 83.	4.3	11
21	Characterization of humic acids in a continuous-feeding vermicomposting system with horse manure. Waste Management, 2019, 99, 1-11.	7.4	30
22	DEAE-dextran hydrochloride behaviour in aqueous solutionâ€"The effect of ionic strength and concentration. Carbohydrate Polymers, 2019, 220, 163-169.	10.2	4
23	Transport of a model diffusion probe in polyelectrolyte-surfactant hydrogels. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2019, 573, 73-79.	4.7	6
24	Compositional and Temperature Effects on the Rheological Properties of Polyelectrolyteâ€“Surfactant Hydrogels. Polymers, 2019, 11, 927.	4.5	19
25	ATR-FTIR spectroscopy and thermogravimetry characterization of water in polyelectrolyte-surfactant hydrogels. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2019, 575, 1-9.	4.7	17
26	Ultrasonic study of hyaluronan interactions with Septonexâ€"A pharmaceutical cationic surfactant. Carbohydrate Polymers, 2019, 204, 17-23.	10.2	7
27	Fluorescence Study of Aggregation Behaviour of Cationic Surfactant Carbethopendecinium Bromide and its Comparison with Cetyltrimethylammonium Bromide. Tenside, Surfactants, Detergents, 2019, 56, 300-305.	1.2	3
28	Interactions of hyaluronan with oppositely charged surfactants in very diluted solutions in water. International Journal of Biological Macromolecules, 2018, 112, 241-249.	7.5	4
29	Facile synthesis and rheological characterization of nanocomposite hyaluronan-organoclay hydrogels. International Journal of Biological Macromolecules, 2018, 111, 680-684.	7.5	8
30	Rates of Reactions as a Mathematical Consequence of the Permanence of Atoms and the Role of Independent Reactions in the Description of Reaction Kinetics. Frontiers in Chemistry, 2018, 6, 287.	3.6	2
31	Thermodynamic Analysis of Chemically Reacting Mixturesâ€"Comparison of First and Second Order Models. Frontiers in Chemistry, 2018, 6, 35.	3.6	3
32	Buccal adhesive films with moisturizer- the next level for dry mouth syndrome?. International Journal of Pharmaceutics, 2018, 550, 309-315.	5.2	20
33	Properties in aqueous solution of homo- and copolymers of vinylphosphonic acid derivatives obtained by UV-curing. Macromolecular Research, 2017, 25, 214-221.	2.4	7
34	Rheological properties of gels formed by physical interactions between hyaluronan and cationic surfactants. Carbohydrate Polymers, 2017, 170, 176-181.	10.2	15
35	Hyaluronic acid in complexes with surfactants: The efficient tool for reduction of the cytotoxic effect of surfactants on human cell types. International Journal of Biological Macromolecules, 2017, 103, 1276-1284.	7.5	13
36	A study of zwitterionic/cationic vesicle formation and the influence of hyaluronan on this formation. Colloid and Polymer Science, 2017, 295, 1131-1140.	2.1	0

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37	Study of interactions between hyaluronan and cationic surfactants by means of calorimetry, turbidimetry, potentiometry and conductometry. Carbohydrate Polymers, 2017, 157, 1837-1843.	10.2	10
38	A practical comparison of photon correlation and cross-correlation spectroscopy in nanoparticle and microparticle size evaluation. Colloid and Polymer Science, 2017, 295, 67-74.	2.1	4
39	Production of Polyhydroxyalkanoates Using Hydrolyzates of Spruce Sawdust: Comparison of Hydrolyzates Detoxification by Application of Overliming, Active Carbon, and Lignite. Bioengineering, 2017, 4, 53.	3.5	61
40	Fluorescence study of freeze-drying as a method for support the interactions between hyaluronan and hydrophobic species. PLoS ONE, 2017, 12, e0184558.	2.5	7
41	Thermodynamic Analysis of Chemically Reacting Mixtures and Their Kinetics: Example of a Mixture of Three Isomers. ChemPhysChem, 2016, 17, 3333-3341.	2.1	4
42	The spectrometric characterization of lipids extracted from lignite samples from various coal basins. Organic Geochemistry, 2016, 95, 34-40.	1.8	12
43	Poly(alkylene-H-phosphonate)s obtained by direct esterification and oxidation of hypophosphorous acid with ethylene glycol. Journal of Macromolecular Science - Pure and Applied Chemistry, 2016, 53, 49-54.	2.2	1
44	The formation of mixed micelles of sugar surfactants and phospholipids and their interactions with hyaluronan. Colloid and Polymer Science, 2016, 294, 823-831.	2.1	13
45	Long-term degradation study of hyaluronic acid in aqueous solutions without protection against microorganisms. Carbohydrate Polymers, 2016, 137, 664-668.	10.2	21
46	The change in excited-state proton transfer kinetics of 1-naphthol in micelles upon the binding of polymers: The influence of hyaluronan hydration. Carbohydrate Polymers, 2015, 129, 168-174.	10.2	2
47	Hyaluronic acid as a modulator of the cytotoxic effects of cationic surfactants. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2015, 483, 155-161.	4.7	11
48	The Thermodynamic Driving Force for Kinetics in General and Enzyme Kinetics in Particular. ChemPhysChem, 2015, 16, 884-885.	2.1	11
49	Study of water-extractable fractions from South Moravian lignite. Environmental Earth Sciences, 2015, 73, 3873-3885.	2.7	18
50	Kinetics of long-term degradation of different molar mass hyaluronan solutions studied by SEC-MALLS. Polymer Degradation and Stability, 2015, 111, 257-262.	5.8	18
51	Thermal degradation of high molar mass hyaluronan in solution and in powder; comparison with BSA. Polymer Degradation and Stability, 2015, 120, 107-113.	5.8	29
52	A simple microviscometric approach based on Brownian motion tracking. Review of Scientific Instruments, 2015, 86, 023710.	1.3	3
53	Determination of Critical Parameters of Drug Substance Influencing Dissolution: A Case Study. BioMed Research International, 2014, 2014, 1-9.	1.9	5
54	Formation and Dissociation of the Acridine Orange Dimer as a Tool for Studying Polyelectrolyteâ€“Surfactant Interactions. Langmuir, 2014, 30, 8726-8734.	3.5	19

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55	High-Resolution Ultrasonic Spectroscopy Study of Interactions between Hyaluronan and Cationic Surfactants. Langmuir, 2014, 30, 11866-11872.	3.5	21
56	Hydrogen peroxide oxidation of humic acids and lignite. Fuel, 2014, 134, 406-413.	6.4	97
57	Densitometry and ultrasound velocimetry of hyaluronan solutions in water and in sodium chloride solution. Carbohydrate Polymers, 2014, 106, 453-459.	10.2	14
58	Effect of CTAB and CTAB in the presence of hyaluronan on selected human cell types. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2014, 460, 204-208.	4.7	21
59	Continuum Thermodynamics of Mixture of Linear Fluids. , 2014, , 143-277.		0
60	Antibacterial activity and cell viability of hyaluronan fiber with silver nanoparticles. Carbohydrate Polymers, 2013, 92, 1177-1187.	10.2	81
61	The effect of hyaluronan on the aggregation of hydrophobized amino acidsâ€"A fluorescence study. Carbohydrate Polymers, 2013, 97, 34-37.	10.2	3
62	A note on an alternative DSC approach to study hydration of hyaluronan. Carbohydrate Polymers, 2012, 89, 1009-1011.	10.2	1
63	Removal of metal ions from multi-component mixture using natural lignite. Fuel Processing Technology, 2012, 101, 29-34.	7.2	41
64	Hyaluronan-surfactant interactions in physiological solution studied by tensiometry and fluorescence probe techniques. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2011, 391, 25-31.	4.7	14
65	Fluorescence Spectroscopy Study of Hyaluronanâ€"Phospholipid Interactions. Behavior Research Methods, 2011, , 235-255.	4.0	2
66	Macroscopic derivation of the kinetic mass-action law. Reaction Kinetics, Mechanisms and Catalysis, 2010, 99, 29.	1.7	3
67	Calorimetric and light scattering study of interactions and macromolecular properties of native and hydrophobically modified hyaluronan. Carbohydrate Polymers, 2010, 81, 855-863.	10.2	13
68	Affinity and Reaction Rates: Reconsideration of Theoretical Background and Modelling Results. Zeitschrift Fur Naturforschung - Section A Journal of Physical Sciences, 2009, 64, 289-299.	1.5	6
69	Lignite pre-treatment and its effect on bio-stimulative properties of respective lignite humic acids. Soil Biology and Biochemistry, 2009, 41, 1894-1901.	8.8	33
70	Lignite humic acids aggregates studied by high resolution ultrasonic spectroscopy. Journal of Thermal Analysis and Calorimetry, 2009, 96, 637-643.	3.6	14
71	Correlation of humic substances chemical properties and their thermo-oxidative degradation kinetics. Journal of Thermal Analysis and Calorimetry, 2009, 98, 207-214.	3.6	2
72	Fluoride Anion Binding by Natural Lignite (South Moravian Deposit of Vienna Basin). Water, Air, and Soil Pollution, 2009, 197, 303-312.	2.4	10

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73	Sorption of metal ions on lignite and the derived humic substances. Journal of Hazardous Materials, 2009, 161, 559-564.	12.4	105
74	Transport of copper(II) ions in humic gelâ€"New results from diffusion couple. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2009, 349, 96-101.	4.7	19
75	Effect of new hydrophobic modification of hyaluronan on its solution properties: evaluation of self-aggregation. Carbohydrate Polymers, 2009, 76, 443-448.	10.2	22
76	Thermodynamic framework for design of reaction rate equations and schemes. Collection of Czechoslovak Chemical Communications, 2009, 74, 1375-1401.	1.0	8
77	Antioxidant effect of lignite humic acids and its salts on the thermo-oxidative stability/degradation of polyvinyl alcohol blends. Environmental Chemistry Letters, 2008, 6, 241-245.	16.2	8
78	Aggregation behavior of novel hyaluronan derivativesâ€"a fluorescence probe study. Colloid and Polymer Science, 2008, 286, 1681-1685.	2.1	8
79	Behaviour of partially soluble humic acids in aqueous suspension. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2008, 318, 106-110.	4.7	22
80	Comparison of Copper Sorption on Lignite and on Soils of Different Types and Their Humic Acids. Environmental Engineering Science, 2008, 25, 1123-1128.	1.6	8
81	New insights into aggregation and conformational behaviour of humic substances: Application of high resolution ultrasonic spectroscopy. Organic Geochemistry, 2007, 38, 2098-2110.	1.8	21
82	Affinity and Reaction Rates: Reconsideration of Experimental Data. Helvetica Chimica Acta, 2007, 90, 1897-1916.	1.6	5
83	The kinetics of thermo-oxidative humic acids degradation studied by isoconversional methods. Journal of Thermal Analysis and Calorimetry, 2007, 89, 957-964.	3.6	8
84	Detailed balance in reaction kinetics â€" Consequence of mass conservation?. Reaction Kinetics and Catalysis Letters, 2007, 90, 323-329.	0.6	5
85	Untypical rheological behaviour of the ligniteâ€"carboxymethylcelluloseâ€"water dispersion system. Colloid and Polymer Science, 2007, 285, 865-872.	2.1	3
86	New model for equilibrium sorption of metal ions on solid humic acids. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2006, 286, 126-133.	4.7	23
87	Stability evaluation of n-alkyl hyaluronic acid derivates by DSC and TG measurement. Journal of Thermal Analysis and Calorimetry, 2006, 83, 341-348.	3.6	26
88	The role of various compounds in humic acids stability studied by TG and DTA. Journal of Thermal Analysis and Calorimetry, 2006, 84, 715-720.	3.6	9
89	Solubility and dissociation of lignitic humic acids in water suspension. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2005, 252, 157-163.	4.7	54
90	Evaluation of oxidation stability of lignite humic substances by DSC induction period measurement. Die Naturwissenschaften, 2005, 92, 336-340.	1.6	9

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91	Modification of flow properties of concentrated lignite dispersions. Colloid and Polymer Science, 2005, 284, 112-116.	2.1	2
92	Thermodynamics and foundations of mass-action kinetics. Progress in Reaction Kinetics and Mechanism, 2005, 30, 3-113.	2.1	32
93	Thermoanalytical investigation of lignite humic acids fractions. Journal of Thermal Analysis and Calorimetry, 2004, 76, 55-65.	3.6	50
94	What can kinetics learn from rational thermodynamics. Chemical Engineering Science, 2004, 59, 4103-4112.	3.8	9
95	Inverse gas chromatography of liquid polybutadienes. Polymer, 2002, 43, 1013-1015.	3.8	5
96	On the miscibility of liquid polybutadienes. Journal of Applied Polymer Science, 2000, 78, 1628-1635.	2.6	2
97	On the general principles of transient behaviour of heterogeneous catalytic reactions. Applied Catalysis A: General, 2000, 199, 221-226.	4.3	5
98	Concentration forcing in the kinetic research in heterogeneous catalysis. Applied Catalysis A: General, 1999, 177, 69-77.	4.3	4
99	Rate-limiting step. Does it exist in the non-steady state?. Chemical Engineering Science, 1997, 52, 2291-2297.	3.8	8
100	Modelling study of transient behaviour of elimination reactions of alcohols and amines on oxide catalysts. Journal of Molecular Catalysis A, 1997, 123, 131-139.	4.8	1