Maria Bercea

List of Publications by Year
in descending order

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132 papers	3,083 citations	201385 27 h-index	197535 49 g-index
133 all docs	133 docs citations	133 times ranked	3115 citing authors

#	Article	IF	Citations
1	Poly(vinylpyrrolidone) â€“ A Versatile Polymer for Biomedical and Beyond Medical Applications. Polymer-Plastics Technology and Engineering, 2015, 54, 923-943.	1.9	321
2	Biomaterials of PVA and PVP in medical and pharmaceutical applications: Perspectives and challenges. Biotechnology Advances, 2019, 37, 109-131.	6.0	302
3	Shear Dynamics of Aqueous Suspensions of Cellulose Whiskers. Macromolecules, 2000, 33, 6011-6016.	2.2	191
4	Biomaterials of Poly(vinyl alcohol) and Natural Polymers. Polymer Reviews, 2018, 58, 247-287.	5.3	150
5	In situgelation of aqueous solutions of entangled poly(vinyl alcohol). Soft Matter, 2013, 9, 1244-1253.	1.2	81
6	Some properties of xanthan gum in aqueous solutions: effect of temperature and pH. Journal of Polymer Research, 2016, 23, 1.	1.2	72
7	Intrinsic viscosity and conformational parameters of xanthan in aqueous solutions: Salt addition effect. Colloids and Surfaces B: Biointerfaces, 2014, 122, 512-519.	2.5	68
8	Shear rheology of semidilute poly(methyl methacrylate) solutions. Macromolecules, 1993, 26, 7095-7096.	2.2	60
9	Synthesis, characterization and solution behaviour of oxidized pullulan. Carbohydrate Polymers, 2014, 111, 63-71.	5.1	56
10	Temperature Responsive Gels Based on Pluronic F127 and Poly(vinyl alcohol). Industrial & Engineering Chemistry Research, 2011, 50, 4199-4206.	1.8	54
11	Polyurethane/poly(vinyl alcohol) hydrogels: Preparation, characterization and drug delivery. European Polymer Journal, 2019, 118, 137-145.	2.6	48
12	Self-healing hydrogels of oxidized pullulan and poly(vinyl alcohol). Carbohydrate Polymers, 2019, 206, 210-219.	5.1	48
13	Investigations on the interactions between xanthan gum and poly(vinyl alcohol) in solid state and aqueous solutions. European Polymer Journal, 2016, 84, 161-172.	2.6	44
14	Physical Hydrogels of Oxidized Polysaccharides and Poly(Vinyl Alcohol) for Wound Dressing Applications. Materials, 2019, 12, 1569.	1.3	43
15	The Behavior of Chitosan in Solvents with Different Ionic Strengths. Industrial & Engineering Chemistry Research, 2012, 51, 12959-12966.	1.8	41
16	Tailoring the properties of poly(vinyl alcohol)/poly(vinylpyrrolidone) hydrogels for biomedical applications. European Polymer Journal, 2016, 84, 313-325.	2.6	41
17	Rheological Investigation of Thermal-Induced Gelation of Polyacrylonitrile Solutions. International Journal of Thermophysics, 2009, 30, 1411-1422.	1.0	37
18	Viscoelastic and structural properties of poly(vinyl alcohol)/poly(vinylpyrrolidone) hydrogels. RSC Advances, 2016, 6, 39718-39727.	1.7	36

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19	Chain Connectivity and Conformational Variability of Polymers: Clues to an Adequate Thermodynamic Description of Their Solutions, 1. Macromolecular Chemistry and Physics, 2003, 204, 1371-1380.	1.1	35
20	Interpenetrated polymer network with modified chitosan in composition and self-healing properties. International Journal of Biological Macromolecules, 2019, 132, 374-384.	3.6	35
21	Versatile poly(vinyl alcohol)/clay physical hydrogels with tailorable structure as potential candidates for wound healing applications. Materials Science and Engineering C, 2020, 109, 110395.	3.8	35
22	Effect of Temperature and Aging Time on the Rheological Behavior of Aqueous Poly(ethylene) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 622	1.2	33
23	Rheological investigation of poly(vinyl alcohol)/poly(N-vinyl pyrrolidone) mixtures in aqueous solution and hydrogel state. Journal of Polymer Research, 2016, 23, 1.	1.2	32
24	Green route for the fabrication of self-healable hydrogels based on tricarboxy cellulose and poly(vinyl alcohol). International Journal of Biological Macromolecules, 2019, 123, 744-751.	3.6	32
25	Viscometric study of extremely dilute polyacrylonitrile solutions. European Polymer Journal, 1999, 35, 2019-2024.	2.6	30
26	pH influence on rheological and structural properties of chitosan/poly(vinyl alcohol)/layered double hydroxide composites. European Polymer Journal, 2015, 70, 147-156.	2.6	29
27	Chitosan/Poly(Vinyl Alcohol)/LDH Biocomposites With pH-Sensitive Properties. International Journal of Polymeric Materials and Polymeric Biomaterials, 2015, 64, 628-636.	1.8	28
28	Bioinspired Hydrogels as Platforms for Life-Science Applications: Challenges and Opportunities. Polymers, 2022, 14, 2365.	2.0	28
29	Ultrahigh molecular weight polymers in dilute solutions. Progress in Polymer Science, 1999, 24, 379-424.	11.8	26
30	The Behavior of Poly(dimethylsiloxane-co-diphenylsiloxane)s in Good and Theta Solvents. Journal of Chemical & Engineering Data, 2011, 56, 1468-1475.	1.0	26
31	Synergistic behavior of poly(aspartic acid) and Pluronic F127 in aqueous solution as studied by viscometry and dynamic light scattering. Colloids and Surfaces B: Biointerfaces, 2013, 103, 544-549.	2.5	26
32	Chain conformation of xanthan in solution as influenced by temperature and salt addition. Journal of Molecular Liquids, 2019, 287, 111008.	2.3	26
33	Hydrodynamic Properties of Polymer Mixtures in Solution. Journal of Chemical & Engineering Data, 2010, 55, 4399-4405.	1.0	25
34	Polyelectrolyte Complexes: Phase Diagram and Intrinsic Viscosities of the System Water/Poly(2â€vinylpyridiniumâ€Br)/Poly(styrene sulfonateâ€Na). Macromolecular Chemistry and Physics, 2012, 213, 2504-2513.	1.1	25
35	Effect of Cryogenic Treatment on the Rheological Properties of Chitosan/Poly(vinyl alcohol) Hydrogels. Industrial & Engineering Chemistry Research, 2015, 54, 11475-11482.	1.8	25
36	Vapor Pressures of Polymer Solutions and the Modeling of Their Composition Dependence. Industrial & Engineering Chemistry Research, 2009, 48, 4603-4606.	1.8	24

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37	Stimuli Responsive Scaffolds Based on Carboxymethyl Starch and Poly(2â€Dimethylaminoethyl) Tj ETQq1 1 0.784314 rgBT /Overlock	2.1	23
38	Tailoring of Clay/Poly(ethylene oxide) Hydrogel Properties by Chitosan Incorporation. Industrial & Engineering Chemistry Research, 2014, 53, 13690-13698.	1.8	22
39	Oxidation vs. degradation in polysaccharides: Pullulan â€“ A case study. European Polymer Journal, 2016, 85, 82-91.	2.6	22
40	Hyaluronic acid gels with tunable properties by conjugating with a synthetic copolymer. Biochemical Engineering Journal, 2017, 125, 135-143.	1.8	22
41	Self-assembling of poly(aspartic acid) with bovine serum albumin in aqueous solutions. International Journal of Biological Macromolecules, 2017, 95, 412-420.	3.6	22
42	An analysis of the complexation between poly(aspartic acid) and poly(ethylene glycol). Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2009, 348, 254-262.	2.3	21
43	Effect of Addition of Polymer on the Rheology and Electrokinetic Features of Laponite RD Aqueous Dispersions. Journal of Chemical & Engineering Data, 2009, 54, 54-59.	1.0	20
44	Real-time monitoring the order-disorder conformational transition of xanthan gum. Journal of Molecular Liquids, 2020, 309, 113168.	2.3	20
45	Random Copolymers:Â Their Solution Thermodynamics as Compared with That of the Corresponding Homopolymers. Industrial & Engineering Chemistry Research, 2008, 47, 2434-2441.	1.8	19
46	Solution characterization of high molecular weight polyacrylonitrile obtained by plasma-induced polymerization. European Polymer Journal, 1991, 27, 553-556.	2.6	18
47	Intrinsic Viscosities of Polymer Blends: Sensitive Probes of Specific Interactions between the Counterions of Polyelectrolytes and Uncharged Macromolecules. Macromolecules, 2018, 51, 7483-7490.	2.2	18
48	Associative behaviour of Î¹-carrageenan in aqueous solutions and its modification by different monovalent salts as reflected by viscometric parameters. International Journal of Biological Macromolecules, 2019, 140, 661-667.	3.6	18
49	High molecular weight polystyrene in solvent mixtures. Preferential and total adsorption. European Polymer Journal, 1993, 29, 183-191.	2.6	17
50	Behavior of Cellulose Reinforced Cross-Linked Starch Composite Films Made with Tartaric Acid Modified Starch Microparticles. Journal of Polymers and the Environment, 2013, 21, 431-440.	2.4	17
51	Intermolecular interactions and self-assembling of polyurethane with poly(vinyl alcohol) in aqueous solutions. Journal of Molecular Liquids, 2019, 274, 562-567.	2.3	17
52	Unperturbed dimensions of high molecular weight polyacrylonitrile. European Polymer Journal, 1991, 27, 589-591.	2.6	16
53	Conformational characteristics of oligo- and polyacrylonitrile in dilute solution. European Polymer Journal, 1999, 35, 377-383.	2.6	16
54	Interpenetrating polymer network systems based on poly(dimethylaminoethyl methacrylate) and a copolymer containing pendant spiroacetal moieties. Materials Science and Engineering C, 2018, 87, 22-31.	3.8	16

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55	New self-healing hydrogels based on reversible physical interactions and their potential applications. European Polymer Journal, 2019, 118, 176-185.	2.6	16
56	Tailoring the properties of PVA/HPC/BSA hydrogels for wound dressing applications. Reactive and Functional Polymers, 2022, 170, 105094.	2.0	16
57	In situ monitoring the solâ€“gel transition for polyacrylamide gel. Rheologica Acta, 2007, 46, 595-600.	1.1	15
58	Influence of Laponite RD on the properties of poly(vinyl alcohol) hydrogels. Journal of Applied Polymer Science, 2018, 135, 46661.	1.3	15
59	Vitrification of polymer solutions as a function of solvent quality, analyzed via vapor pressures. Journal of Chemical Physics, 2006, 124, 174902.	1.2	14
60	Impact of ethanol addition on the behaviour of xanthan gum in aqueous media. Food Hydrocolloids, 2021, 120, 106928.	5.6	14
61	Lubricant oils additivated with polymers in EHD contacts: Part 2. Tests using a four-ball machine. Lubrication Science, 2005, 17, 173-184.	0.9	13
62	Enthalpy and Entropy Contributions to Solvent Quality and Inversions of Heat Effects with Polymer Concentration. Macromolecular Chemistry and Physics, 2006, 207, 1661-1673.	1.1	13
63	Study of a binary interpenetrated polymeric complex by correlation of rheological parameters with zeta potential and conductivity. Colloids and Surfaces B: Biointerfaces, 2010, 76, 70-75.	2.5	13
64	Semi-interpenetrated polymer networks of hyaluronic acid modified with poly(aspartic acid). Journal of Polymer Research, 2013, 20, 1.	1.2	13
65	Hybrid gels by conjugation of hyaluronic acid with poly(itaconic) Tj ETQq1 1 0.784314 rgBT /Overlock 10 Tf 50 347 Td (anhydride-co-[illegible] Biological Macromolecules, 2017, 98, 407-418.	3.6	13
66	Self-Healing Behavior of Polymer/Protein Hybrid Hydrogels. Polymers, 2022, 14, 130.	2.0	13
67	Contribution to polymer nanoparticles analysis by laser light scattering. Polymer Testing, 2009, 28, 886-890.	2.3	12
68	Islands of Immiscibility for Solutions of Compatible Polymers in a Common Solvent: Experiment and Theory. Macromolecules, 2009, 42, 3620-3626.	2.2	12
69	Associative interactions between pullulan and negatively charged bovine serum albumin in physiological saline solutions. Carbohydrate Polymers, 2020, 246, 116630.	5.1	12
70	Solution properties of ultrahigh molecular weight polymersâ€”20. Polymer chain dimensions of poly(methyl methacrylate). European Polymer Journal, 1995, 31, 85-89.	2.6	11
71	Aspects concerning the temperature influence on the polymer/polymer interactions between poly(aspartic acid) and poly(ethylene glycol). Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2011, 374, 121-128.	2.3	11
72	Effect of pH and temperature upon self-assembling process between poly(aspartic acid) and Pluronic F127. Colloids and Surfaces B: Biointerfaces, 2014, 119, 47-54.	2.5	11

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73	Viscoelastic behaviour of selfâ€assembling polyurethane and poly(vinyl alcohol). Polymer International, 2020, 69, 149-155.	1.6	11
74	Thermosensitive Poloxamer-graft-Carboxymethyl Pullulan: A Potential Injectable Hydrogel for Drug Delivery. Polymers, 2021, 13, 3025.	2.0	11
75	Influence of the Solvent Quality on the Thermodynamic Behavior of Polymethylphenylsiloxane Solutions. Industrial & Engineering Chemistry Research, 2010, 49, 12740-12746.	1.8	10
76	Rheological Investigation of Prunus Sp. Gums in Aqueous Medium. Industrial & Engineering Chemistry Research, 2011, 50, 14148-14154.	1.8	10
77	Investigation of Poly(vinyl alcohol)/Pluronic F127 Physical Gels. Polymer-Plastics Technology and Engineering, 2014, 53, 1354-1361.	1.9	10
78	Thermosensitive gels of pullulan and poloxamer 407 as potential injectable biomaterials. Journal of Molecular Liquids, 2022, 362, 119717.	2.3	10
79	Chain conformation and viscometric behaviour of high molecular weight polystyrene in solvent/nonsolvent mixtures. Polymer Bulletin, 1991, 26, 117-122.	1.7	9
80	Static and dynamic investigations of poly(aspartic acid) and Pluronic F127 complex prepared by self-assembling in aqueous solution. Applied Surface Science, 2015, 359, 486-495.	3.1	9
81	Tuning the associative properties and micelles geometry by stepwise quaternization of PDMAEMA. Reactive and Functional Polymers, 2018, 124, 171-180.	2.0	9
82	Miscibility study on polymer mixtures in dilute solution. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2018, 559, 325-333.	2.3	9
83	Conformational Transitions of High-Molecular-Weight Poly(Methyl Methacrylate) in Dilute Solutions. Polymer-Plastics Technology and Engineering, 1999, 38, 87-97.	1.9	8
84	Second virial coefficient of oligo- and polyacrylonitrile. Polymer Testing, 2002, 21, 233-239.	2.3	8
85	On what terms and why the thermodynamic properties of polymer solutions depend on chain length up to the melt. Journal of Polymer Science, Part B: Polymer Physics, 2004, 42, 1601-1609.	2.4	8
86	Conformations of polysulfone-block-polydimethylsiloxane chains in solution and in the solid state. Polymer International, 2004, 53, 1860-1865.	1.6	8
87	Influence of Temperature on the Rheological Behavior of Polymer Mixtures in Solution. Industrial & Engineering Chemistry Research, 2011, 50, 9451-9455.	1.8	8
88	New Physical Hydrogels Based on Co-Assembling of FMOCâ€“Amino Acids. Gels, 2021, 7, 208.	2.1	8
89	Polyethylene as an Additive for Mineral Oilsâ€”Part I: Influence of the Polymer Concentration on the Filmâ€”Forming Properties in Rolling Bearing. Tribology Transactions, 1999, 42, 851-859.	1.1	7
90	Dextranâ€Based Polycations: Thermodynamic Interaction with Water as Compared With Unsubstituted Dextran, 2 â€“ Flory/Huggins Interaction Parameter. Macromolecular Chemistry and Physics, 2011, 212, 1932-1940.	1.1	7

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91	Rheological investigation of polymer/clay dispersions as potential drilling fluids. Journal of Petroleum Science and Engineering, 2022, 210, 110015.	2.1	7
92	Lubricant oils additivated with polymers in EHD contacts: Part 1. Rheological behaviour. Lubrication Science, 2004, 17, 1-24.	0.9	6
93	The Behavior of Polyacrylonitrile Solutions in Dimethylformamide at Very Low Concentrations. High Performance Polymers, 2008, 20, 311-322.	0.8	6
94	Rheological Behavior of Some Cationic Polyelectrolytes. Journal of Macromolecular Science - Physics, 2009, 48, 1011-1024.	0.4	6
95	Preparation and Properties of Cellulose Solutions. , 2012, , 91-152.		6
96	Multifunctional hybrid 3D network based on hyaluronic acid and a copolymer containing pendant spiroacetal moieties. International Journal of Biological Macromolecules, 2019, 125, 191-202.	3.6	6
97	Development of histamine reinforced poly(vinyl alcohol)/chitosan blended films for potential biomedical applications. Journal of Applied Polymer Science, 2022, 139, 51912.	1.3	6
98	Polyethylene as an Additive for Mineral Oils â€" Part II: EHL Traction Behavior. Tribology Transactions, 2002, 45, 145-152.	1.1	5
99	Viscometry of polyelectrolyte solutions: Star-like versus linear poly[[2-(methacryloyloxy)ethyl] trimethylammonium iodide] and specific salt effects. European Polymer Journal, 2017, 93, 148-157.	2.6	5
100	Consequences of linking charged and uncharged monomers to binary copolymers studied in dilute solution. Part II: Non-additivity effects in the viscometric behavior. European Polymer Journal, 2017, 88, 422-432.	2.6	5
101	The viscosity of globular proteins in the presence of an â€œinertâ€•macromolecular cosolute. Journal of Molecular Liquids, 2021, 337, 116382.	2.3	5
102	Interpretation of long-chain structure from dilute solution properties of ultrahigh molecular weight polymers. Polymer Bulletin, 1992, 27, 571-575.	1.7	4
103	Synthesis, characterization and conformational transitions in copolymers of 2-(o-chlorophenyl)-4-methylene-1,3-dioxolane with vinyl monomers. Polymer International, 2004, 53, 1253-1258.	1.6	4
104	Viscometric and rheological study of polyacrylonitrile solutions. E-Polymers, 2009, 9, .	1.3	4
105	Temperature influence on the behavior of polysulfoneâ€bâ€poly(alkylene) Tj ETQq1 1 0.784314 rgBT /Overlock 10 Tf 50 187 T and Science, 2017, 57, 114-118.	1.5	4
106	Consequences of linking charged and uncharged monomers to binary copolymers studied in dilute solution. Part I: Viscometric behavior of the homopolymers, the effects of charging, and uncommon salt effects. European Polymer Journal, 2017, 88, 412-421.	2.6	4
107	Shear flow of associative polymers in aqueous solutions. Journal of Molecular Structure, 2021, 1238, 130441.	1.8	4
108	Solution Properties of Ultrahigh-Molecular-Weight Polymers. 21. Conformational Characteristics of Poly(Methyl Methacrylate)â^—. Polymer-Plastics Technology and Engineering, 1998, 37, 285-294.	1.9	3

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109	Flow Properties of Ultrahigh-Molecular-Weight Poly(Methyl Methacrylate) in Semidilute Solutions. Polymer-Plastics Technology and Engineering, 1999, 38, 255-266.	1.9	3
110	The tribological behaviour of mineral oils additivated with polyethylene. Lubrication Science, 1999, 11, 247-270.	0.9	3
111	The Temperature Influence upon the Complexation Process between Poly(aspartic acid) and Poly(ethylene glycol). Industrial & Engineering Chemistry Research, 2011, 50, 5369-5375.	1.8	3
112	The magnetic field effect during preparation of an interpenetrated hybrid polymeric composite. Polymer Composites, 2012, 33, 1816-1823.	2.3	3
113	Thermodynamics of Copolymer Solutions: How the Pair Interactions Contribute to the Overall Effect. Journal of Physical Chemistry B, 2014, 118, 9414-9419.	1.2	3
114	Detection of polymer compatibility by means of self-organization: poly(ethylene oxide) and poly(sodium 4-styrenesulfonate). Soft Matter, 2021, 17, 5214-5220.	1.2	3
115	Solutions of polymer blends in highly saline water: Salt-induced inversions of viscosity effects for poly(ethylene oxide) + poly(sodium 4-styrenesulfonate). Polymer, 2022, 241, 124510.	1.8	3
116	Phosphorylated Curdlan Gel/Polyvinyl Alcohol Electrospun Nanofibres Loaded with Clove Oil with Antibacterial Activity. Gels, 2022, 8, 439.	2.1	3
117	Dynamic behavior of ultrahigh molecular weight poly(methyl methacrylate) in semidilute solutions. Macromolecular Symposia, 2000, 158, 169-182.	0.4	2
118	Rheological Investigations of Copolymers of N-(Substituted Maleimide)s with Styrene in Dimethylsulfoxide. Journal of Macromolecular Science - Physics, 2008, 47, 1108-1116.	0.4	2
119	Thermoreversible Poly(isopropyl lactate diol)-Based Polyurethane Hydrogels: Effect of Isocyanate on Some Physical Properties. Industrial & Engineering Chemistry Research, 2012, , 120911115023009.	1.8	2
120	Synthesis and rheology of thermoreversible polyurethane hydrogels. Open Chemistry, 2012, 10, 1859-1866.	1.0	2
121	Comportement rhÃ©ologique et tribologique de lubrifiants avec additif polymÃ¨re. Materiaux Et Techniques, 2001, 89, 21-28.	0.3	2
122	Evaluation of the Complexation Process Between Poly(Aspartic Acid) and Poly(Ethylene Glycol) Through Dynamic Rheology and Electrokinetic Potential. Journal of Macromolecular Science - Physics, 2012, 51, 288-297.	0.4	1
123	Dependence of solvent quality on the composition of copolymers: experiment and theory for solutions of P(MMA-ran-t-BMA) in toluene and in chloroform. Soft Matter, 2015, 11, 615-621.	1.2	1
124	Rheological Investigation of Pluronic F127/PVA Mixtures in Aqueous Solution and Gel State. Journal of Nanoscience and Nanotechnology, 2017, 17, 4772-4777.	0.9	1
125	Preparation and surface characterization of polyurethane hydrogels. Revue Roumaine De Chimie, 2021, 66, 87-93.	0.4	1
126	Shear flow of bovine serum albumin solutions. Studia Universitatis Babes-Bolyai Chemia, 2019, 64, 121-128.	0.1	1

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127	A rheological model based on primary laboratory data of lubricants with polymers additives. Macromolecular Symposia, 2002, 181, 353-362.	0.4	0
128	Oligo- and Polyacrylonitrile in Dilute Solution Excluded Volume Effect. Polymer-Plastics Technology and Engineering, 2004, 43, 477-490.	1.9	0
129	Friction reduction in rolling bearing by using polymer additives. Lubrication Science, 2009, 21, 321-330.	0.9	0
130	Copolymers with Controlled Architectures as Rheological Additives for Alkydic Resin Solutions. Journal of Macromolecular Science - Physics, 2009, 48, 379-390.	0.4	0
131	On the Interactions Between Bovine Serum Albumin and Reduced Glutathione in Solution. , 2021, , .		0
132	Macromolecular Crowding in Solutions of Bovine Serum Albumin and Neutral Polymers. , 2021, , .		0