

Silvina Cervený

List of Publications by Year in descending order

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75
papers

2,695
citations

186265

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182427

51
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75
all docs

75
docs citations

75
times ranked

2720
citing authors

#	ARTICLE	IF	CITATIONS
1	Confined Water as Model of Supercooled Water. <i>Chemical Reviews</i> , 2016, 116, 7608-7625.	47.7	250
2	Dynamics of Water Intercalated in Graphite Oxide. <i>Journal of Physical Chemistry C</i> , 2010, 114, 2604-2612.	3.1	202
3	Glass Transition and Relaxation Processes in Supercooled Water. <i>Physical Review Letters</i> , 2004, 93, 245702.	7.8	158
4	Universal features of water dynamics in solutions of hydrophilic polymers, biopolymers, and small glass-forming materials. <i>Physical Review E</i> , 2008, 77, 031803.	2.1	127
5	Permanent adsorption of organic solvents in graphite oxide and its effect on the thermal exfoliation. <i>Carbon</i> , 2010, 48, 1079-1087.	10.3	103
6	Dielectric Investigation of the Low-Temperature Water Dynamics in the Poly(vinyl methyl ether)/H ₂ O System. <i>Macromolecules</i> , 2005, 38, 7056-7063.	4.8	100
7	Sorption and desorption behavior of water and organic solvents from graphite oxide. <i>Carbon</i> , 2010, 48, 3277-3286.	10.3	97
8	Dielectric Study of Hydration Water in Silica Nanoparticles. <i>Journal of Physical Chemistry C</i> , 2012, 116, 24340-24349.	3.1	89
9	Water dynamics in n-propylene glycol aqueous solutions. <i>Journal of Chemical Physics</i> , 2006, 124, 194501.	3.0	77
10	Dependence of the network structure of cured styrene butadiene rubber on the sulphur content. <i>Polymer</i> , 2004, 45, 6037-6044.	3.8	66
11	Effect of addition of silica- and amine functionalized silica-nanoparticles on the microstructure of calcium silicate hydrate (C-S-H) gel. <i>Journal of Colloid and Interface Science</i> , 2015, 450, 109-118.	9.4	66
12	Linear Viscoelastic and Dielectric Relaxation Response of Unentangled UPy-Based Supramolecular Networks. <i>Macromolecules</i> , 2016, 49, 3899-3910.	4.8	62
13	Dynamics of deeply supercooled interfacial water. <i>Journal of Physics Condensed Matter</i> , 2015, 27, 033102.	1.8	58
14	Broadband dielectric investigation on poly(vinyl pyrrolidone) and its water mixtures. <i>Journal of Chemical Physics</i> , 2008, 128, 044901.	3.0	57
15	Dielectric spectroscopy in the GHz region on fully hydrated zwitterionic amino acids. <i>Physical Chemistry Chemical Physics</i> , 2012, 14, 11352.	2.8	56
16	Comment on "Pressure Dependence of Fragile-to-Strong Transition and a Possible Second Critical Point in Supercooled Confined Water". <i>Physical Review Letters</i> , 2006, 97, 189802; discussion 189803.	7.8	55
17	Effect of hydration on the dielectric properties of C-S-H gel. <i>Journal of Chemical Physics</i> , 2011, 134, 034509.	3.0	49
18	Polymers under extreme two-dimensional confinement: Poly(ethylene oxide) in graphite oxide. <i>Soft Matter</i> , 2011, 7, 7173.	2.7	46

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19	Dynamics of Amorphous and Semicrystalline 1,4- <i>trans</i> -Poly(isoprene) by Dielectric Spectroscopy. <i>Macromolecules</i> , 2008, 41, 8669-8676.	4.8	42
20	Influence of Water and Filler Content on the Dielectric Response of Silica-Filled Rubber Compounds. <i>Macromolecules</i> , 2013, 46, 2407-2416.	4.8	42
21	Two-Dimensional Subnanometer Confinement of Ethylene Glycol and Poly(ethylene oxide) by Neutron Spectroscopy: Molecular Size Effects. <i>Macromolecules</i> , 2012, 45, 3137-3144.	4.8	41
22	Thermal aging of carbon black filled rubber compounds. I. Experimental evidence for bridging flocculation. <i>Polymer</i> , 2003, 44, 7229-7240.	3.8	40
23	Macromolecular Structure and Vibrational Dynamics of Confined Poly(ethylene oxide): From Subnanometer 2D-Intercalation into Graphite Oxide to Surface Adsorption onto Graphene Sheets. <i>ACS Macro Letters</i> , 2012, 1, 550-554.	4.8	38
24	Enhancing arsenic adsorption via excellent dispersion of iron oxide nanoparticles inside poly(vinyl Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50	6.7	38
25	Quasielastic neutron scattering study of hydrogen motions in an aqueous poly(vinyl methyl ether) solution. <i>Journal of Chemical Physics</i> , 2011, 134, 204906.	3.0	37
26	Component dynamics in polyvinylpyrrolidone concentrated aqueous solutions. <i>Journal of Chemical Physics</i> , 2012, 137, 084902.	3.0	36
27	Dielectric $\hat{1}\pm$ - and $\hat{1}^2$ -Relaxations in Uncured Styrene Butadiene Rubber. <i>Macromolecules</i> , 2002, 35, 4337-4342.	4.8	35
28	Chain Length Effects on the Dynamics of Poly(ethylene oxide) Confined in Graphite Oxide: A Broadband Dielectric Spectroscopy Study. <i>Macromolecules</i> , 2013, 46, 7932-7939.	4.8	35
29	Analysis of the variation of molecular parameters of NR during vulcanization in the frame of the conformational tube model. <i>Journal of Applied Polymer Science</i> , 1997, 66, 1085-1092.	2.6	27
30	Relaxations of Hydrogen-Bonded Liquids Confined in Two-Dimensional Vermiculite Clay. <i>Journal of Physical Chemistry B</i> , 2004, 108, 11596-11603.	2.6	25
31	Dielectric properties of water in amorphous mixtures of polymers and other glass forming materials. <i>Journal of Non-Crystalline Solids</i> , 2007, 353, 4523-4527.	3.1	25
32	Evidence of Coupling between the Motions of Water and Peptides. <i>Journal of Physical Chemistry Letters</i> , 2016, 7, 4093-4098.	4.6	25
33	Dynamics of nano-confined water in Portland cement - comparison with synthetic C-S-H gel and other silicate materials. <i>Scientific Reports</i> , 2017, 7, 8258.	3.3	25
34	A numerical simulation of the electrical resistivity of carbon black filled rubber. <i>Polymer</i> , 2000, 41, 6589-6595.	3.8	24
35	Dynamics of confined water in different environments. <i>European Physical Journal: Special Topics</i> , 2007, 141, 49-52.	2.6	24
36	Some considerations concerning the dynamic mechanical properties of cured styrene-butadiene rubber/polybutadiene blends. <i>Polymer International</i> , 2000, 49, 216-222.	3.1	23

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37	Cause of the fragile-to-strong transition observed in water confined in C-S-H gel. <i>Journal of Chemical Physics</i> , 2013, 139, 164714.	3.0	23
38	Analysis of variation of molecular parameters of natural rubber during vulcanization in conformational tube model. II. Influence of sulfur/accelerator ratio. <i>Journal of Applied Polymer Science</i> , 1999, 74, 2747-2755.	2.6	22
39	Dielectric spectra broadening as a signature for dipole-matrix interaction. IV. Water in amino acids solutions. <i>Journal of Chemical Physics</i> , 2014, 140, 135104.	3.0	21
40	Characterization of free volume during vulcanization of styrene butadiene rubber by means of positron annihilation lifetime spectroscopy and dynamic mechanical test. <i>Physical Review E</i> , 2002, 65, 021801.	2.1	20
41	Dielectric relaxations in ribose and deoxyribose supercooled water solutions. <i>Journal of Chemical Physics</i> , 2009, 131, 085102.	3.0	20
42	Water dynamics in the hydration shells of biological and non-biological polymers. <i>Journal of Chemical Physics</i> , 2019, 150, 234904.	3.0	19
43	The effect of vulcanization additives on the dielectric response of styrene-butadiene rubber compounds. <i>Polymer</i> , 2019, 172, 205-212.	3.8	19
44	Glass-transition and secondary relaxation in SBR-1502 from dynamic mechanical data. <i>Polymer</i> , 2000, 41, 2227-2230.	3.8	18
45	Dynamics of Water in Supercooled Aqueous Solutions of Poly(propylene glycol) As Studied by Broadband Dielectric Spectroscopy and Low-Temperature FTIR-ATR Spectroscopy. <i>Journal of Physical Chemistry B</i> , 2011, 115, 13817-13827.	2.6	17
46	Comparative study of thermal, mechanical and structural properties of polybutadiene rubber isomers vulcanized using peroxide. <i>Polymer Testing</i> , 2016, 52, 117-123.	4.8	17
47	The dynamical behavior of hydrated glutathione: a model for protein-water interactions. <i>Physical Chemistry Chemical Physics</i> , 2010, 12, 10512.	2.8	16
48	Dynamics of supercooled water in a biological model system of the amino acid L-lysine. <i>Physical Chemistry Chemical Physics</i> , 2014, 16, 22382-22390.	2.8	15
49	Influence of the cure level on the monomeric friction coefficient of natural rubber vulcanizates. <i>Polymer International</i> , 2004, 53, 646-655.	3.1	14
50	Effect of Chemical Environment on the Dynamics of Water Confined in Calcium Silicate Minerals: Natural and Synthetic Tobermorite. <i>Langmuir</i> , 2015, 31, 4964-4972.	3.5	14
51	Motions of water and solutes - Slaving versus plasticization phenomena. <i>Journal of Chemical Physics</i> , 2019, 150, 124902.	3.0	14
52	Contribution of the Methine Group to the Transverse ^1H NMR Relaxation in Vulcanized Natural Rubbers. <i>Macromolecules</i> , 2004, 37, 5624-5629.	4.8	13
53	Confinement of poly(ethylene oxide) in the nanometer-scale pores of resins and carbon nanoparticles. <i>Soft Matter</i> , 2013, 9, 10960.	2.7	13
54	Water dynamics in poly(vinyl pyrrolidone)-water solution before and after isothermal crystallization. <i>Journal of Non-Crystalline Solids</i> , 2010, 356, 3037-3041.	3.1	12

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55	Dynamic properties in aluminum filled PMMA. <i>Polymer</i> , 1999, 40, 1495-1500.	3.8	11
56	Broadband Dielectric Spectroscopic, Calorimetric, and FTIR-ATR Investigations of α -D-Glucopyranosyl Arabinose Aqueous Solutions. <i>ChemPhysChem</i> , 2011, 12, 3624-3633.	2.1	9
57	Tuning molecular dynamics by hydration and confinement: antiplasticizing effect of water in hydrated prilocaine nanoclusters. <i>Physical Chemistry Chemical Physics</i> , 2019, 21, 15576-15583.	2.8	9
58	On the microscopic origins of relaxation processes in aqueous peptide solutions undergoing a glass transition. <i>Journal of Chemical Physics</i> , 2020, 152, 234503.	3.0	9
59	Dynamics of amorphous and partially crystallized proline solutions. <i>Journal of Non-Crystalline Solids</i> , 2015, 407, 486-493.	3.1	8
60	Dynamics and Structure of Poly(ethylene oxide) Intercalated in the Nanopores of Resorcinol-Formaldehyde Resin Nanoparticles. <i>Macromolecules</i> , 2016, 49, 5704-5713.	4.8	8
61	On the microscopic origin of the cryoprotective effect in lysine solutions. <i>Physical Chemistry Chemical Physics</i> , 2020, 22, 6919-6927.	2.8	7
62	Extended Adam-Gibbs Approach To Describe the Segmental Dynamics of Cross-Linked Miscible Rubber Blends. <i>Macromolecules</i> , 2018, 51, 1741-1747.	4.8	5
63	Dynamics of aqueous peptide solutions in folded and disordered states examined by dynamic light scattering and dielectric spectroscopy. <i>Physical Chemistry Chemical Physics</i> , 2021, 23, 15020-15029.	2.8	4
64	Molecular Insights into Dipole Relaxation Processes in Water-Lysine Mixtures. <i>Journal of Physical Chemistry B</i> , 2019, 123, 6056-6064.	2.6	3
65	Hardening and Fresh State Behaviour of Ternary Cement for Marine Environments: Modification through Nanoadditives. <i>Materials</i> , 2022, 15, 1938.	2.9	3
66	Influence of ice formation on the dynamic and thermodynamic properties of aqueous solutions. <i>Journal of Molecular Liquids</i> , 2022, 356, 119039.	4.9	3
67	A non-linear method for the calculation of the loss tangent distribution function. <i>Rheologica Acta</i> , 1996, 35, 315-320.	2.4	2
68	Two-dimensional ordering in 1-propanol-graphite-oxide intercalates: isotopic effects. <i>Molecular Physics</i> , 2019, 117, 3434-3444.	1.7	2
69	Isotope Effect on the Dynamics of Hydrophilic Solutions at Supercooled Temperatures. <i>ACS Symposium Series</i> , 2021, , 263-281.	0.5	2
70	Hydration Water Dynamics in Solutions of Hydrophilic Polymers, Biopolymers and Other Glass Forming Materials by Dielectric Spectroscopy. <i>AIP Conference Proceedings</i> , 2008, , .	0.4	1
71	Coupling between amino acid and water dynamics by broadband dielectric spectroscopy. , 2014, , .		1
72	Some considerations concerning the dynamic mechanical properties of cured styrene-butadiene rubber/polybutadiene blends. <i>Polymer International</i> , 2000, 49, 216-222.	3.1	1

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73	Structural and Dynamical Studies of C-S-H Gel Synthesized with Nano-Silica Particles and Amine Functionalized Silica Nanoparticles. , 2015, , .		0
74	Influence of the Crosslinking Content on the Structural Properties of Polybutadiene Rubbers with Different Isomeric Composition. Defect and Diffusion Forum, 0, 373, 269-273.	0.4	0
75	Dynamics of Water in Partially Crystallized Solutions of Glass Forming Materials and Polymers: Implications on the Behavior of Bulk Water. Advances in Dielectrics, 2020, , 169-194.	1.2	0