Jules John Magda

List of Publications by Year
in descending order

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78 papers	3,078 citations	147801 31 h-index	155660 55 g-index
80 all docs	80 docs citations	80 times ranked	2846 citing authors

#	Article	IF	Citations
1	Molecular dynamics of narrow, liquidâ€filled pores. Journal of Chemical Physics, 1985, 83, 1888-1901.	3.0	344
2	Molecular dynamics of flow in micropores. Journal of Chemical Physics, 1987, 87, 1733-1750.	3.0	256
3	Adsorption of Globular Proteins at the Air/Water Interface as Measured via Dynamic Surface Tension: Concentration Dependence, Mass-Transfer Considerations, and Adsorption Kinetics. Journal of Colloid and Interface Science, 1995, 173, 16-27.	9.4	214
4	Rheological Properties of Crossâ€Linked Hyaluronanâ€“Gelatin Hydrogels for Tissue Engineering. Macromolecular Bioscience, 2009, 9, 20-28.	4.1	210
5	A transition occurring in ideal elastic liquids during shear flow. Journal of Non-Newtonian Fluid Mechanics, 1988, 30, 1-19.	2.4	112
6	Shear flows of liquid crystal polymers: measurements of the second normal stress difference and the Doi molecular theory. Macromolecules, 1991, 24, 4460-4468.	4.8	110
7	Coil-stretch transitions in mixed shear and extensional flows of dilute polymer solutions. Macromolecules, 1989, 22, 3004-3010.	4.8	109
8	Molecular alignment of polymer liquid crystals in shear flows. 1. Spectrographic birefringence technique, steady-state orientation, and normal stress behavior in poly(benzyl glutamate) solutions. Macromolecules, 1993, 26, 772-784.	4.8	90
9	Rheology, flow instabilities, and shear-induced diffusion in polystyrene solutions. Macromolecules, 1993, 26, 1696-1706.	4.8	90
10	Polarized Alignment and Surface Immobilization of Microtubules for Kinesin-Powered Nanodevices. Nano Letters, 2001, 1, 277-280.	9.1	81
11	Osmotic swelling pressure response of smart hydrogels suitable for chronically implantable glucose sensors. Sensors and Actuators B: Chemical, 2010, 144, 332-336.	7.8	77
12	Constant-Volume Hydrogel Osmometer:Â A New Device Concept for Miniature Biosensors. Biomacromolecules, 2002, 3, 1271-1275.	5.4	75
13	Free swelling and confined smart hydrogels for applications in chemomechanical sensors for physiological monitoring. Sensors and Actuators B: Chemical, 2009, 136, 186-195.	7.8	75
14	Deformationâ€dependent hydrodynamic interaction in flows of dilute polymer solutions. Journal of Chemical Physics, 1988, 89, 2504-2513.	3.0	73
15	Second normal stress difference of a Boger fluid. Polymer, 1991, 32, 2000-2009.	3.8	58
16	Time-Dependent Rheology of a Model Waxy Crude Oil with Relevance to Gelled Pipeline Restart. Energy & Fuels, 2009, 23, 1311-1315.	5.1	56
17	Dimensions of a polymer chain in a mixed solvent. Macromolecules, 1988, 21, 726-732.	4.8	54
18	Fabrication of Highly Uniform Nanoparticles from Recombinant Silk-Elastin-like Protein Polymers for Therapeutic Agent Delivery. ACS Nano, 2011, 5, 5374-5382.	14.6	53

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19	Does N 1 or N 2 control the onset of edge fracture?. Rheologica Acta, 1992, 31, 306-308.	2.4	52
20	Catalase Effects on Glucose-Sensitive Hydrogels. Macromolecules, 2000, 33, 3332-3336.	4.8	50
21	Interfacial Tension of a Nematic Liquid Crystal/Water Interface with Homeotropic Surface Alignment. Langmuir, 2004, 20, 8110-8113.	3.5	48
22	A comparison of fluoroalkyl-derivatized imidazolium:TFSI and alkyl-derivatized imidazolium:TFSI ionic liquids: a molecular dynamics simulation study. Physical Chemistry Chemical Physics, 2010, 12, 7064.	2.8	48
23	The transport properties of rodâ€like particles via molecular dynamics. I. Bulk fluid. Journal of Chemical Physics, 1986, 85, 6674-6685.	3.0	45
24	Hydrogel based sensor arrays (2Ã—2) with perforated piezoresistive diaphragms for metabolic monitoring (in vitro). Sensors and Actuators B: Chemical, 2010, 145, 807-816.	7.8	43
25	Separation of the effects of pH and polymer concentration on the swelling pressure and elastic modulus ofÂa pH-responsive hydrogel. Polymer, 2006, 47, 7335-7338.	3.8	39
26	Monolithic rheometer plate fabricated using silicon micromachining technology and containing miniature pressure sensors for N1 and N2 measurements. Journal of Rheology, 2003, 47, 1249-1260.	2.6	38
27	Thermodynamic analysis of the selectivity enhancement obtained by using smart hydrogels that are zwitterionic when detecting glucose with boronic acid moieties. Sensors and Actuators B: Chemical, 2011, 160, 1363-1371.	7.8	36
28	Flow-induced concentration fluctuations in polymer solutions: Structure/property relationships. Rheologica Acta, 1993, 32, 1-8.	2.4	35
29	Concentrated entangled and semidilute entangled polystyrene solutions and the second normal stress difference. Polymer, 1994, 35, 1187-1194.	3.8	35
30	Comparison of Surfactants Used to Prepare Aqueous Perfluoropentane Emulsions for Pharmaceutical Applications. Langmuir, 2010, 26, 4655-4660.	3.5	35
31	The propagation of pressure in a gelled waxy oil pipeline as studied by particle imaging velocimetry. AICHE Journal, 2012, 58, 302-311.	3.6	35
32	Smart Hydrogel-Based Biochemical Microsensor Array for Medical Diagnostics. Advances in Science and Technology, 0, , .	0.2	33
33	The transport properties of rodâ€like particles. II. Narrow slit pore. Journal of Chemical Physics, 1988, 88, 1207-1213.	3.0	24
34	Development, fabrication, and characterization of hydrogel based piezoresistive pressure sensors with perforated diaphragms. Sensors and Actuators A: Physical, 2010, 161, 29-38.	4.1	24
35	A comparison of three different methods for measuring both normal stress differences of viscoelastic liquids in torsional rheometers. Rheologica Acta, 2009, 48, 191-200.	2.4	22
36	Structural, mechanical and osmotic properties of injectable hyaluronan-based composite hydrogels. Polymer, 2010, 51, 4424-4430.	3.8	21

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37	Manipulation of the isoelectric point of polyampholytic smart hydrogels in order to increase the range and selectivity of continuous glucose sensors. Sensors and Actuators B: Chemical, 2018, 255, 1057-1063.	7.8	20
38	Shear-Induced Textures in the Lyotropic Liquid Crystal Poly(.gamma.-benzyl L-glutamate) (PBLG). Macromolecules, 1994, 27, 2784-2788.	4.8	18
39	Piezoresistive pH Microsensors Based on Stimuli-Sensitive Polyelectrolyte HydrogelsPiezoresistive pH-Mikrosensoren auf der Basis stimuli-sensitiver polyelektrolytischer Hydrogele. TM Technisches Messen, 2010, 77, .	0.7	17
40	Low-Cost Microfluidic Sensors with Smart Hydrogel Patterned Arrays Using Electronic Resistive Channel Sensing for Readout. Gels, 2018, 4, 84.	4.5	17
41	Smart Hydrogel Micromechanical Resonators with Ultrasound Readout for Biomedical Sensing. ACS Sensors, 2020, 5, 1882-1889.	7.8	17
42	Temperature-dependent transparency of poly(HPMA-co-DMA) hydrogels: effect of synthesis parameters. Polymer, 2003, 44, 4541-4546.	3.8	16
43	Heterogeneous Organic Gels: Rheology and Restart. Energy & Fuels, 2013, 27, 1762-1771.	5.1	16
44	Measurements of the second normal stress difference for star polymers with highly entangled branches. Macromolecules, 1992, 25, 4744-4750.	4.8	15
45	Evolution of the Pressure Profile during the Gelation and Restart of a Model Waxy Crude Oil. Energy & Fuels, 2013, 27, 1909-1913.	5.1	15
46	Viscoelastic second normal stress difference dominated multiple-stream particle focusing in microfluidic channels. Applied Physics Letters, 2019, 115, 263702.	3.3	14
47	Effect of the Flow Shutdown Temperature on the Gelation of Slurry Flows in a Waxy Oil Pipeline. Industrial & Engineering Chemistry Research, 2015, 54, 4455-4459.	3.7	13
48	Viscoelastic Particle Focusing and Separation in a Spiral Channel. Micromachines, 2022, 13, 361.	2.9	13
49	Effects of gamma rays and neutron irradiation on the glucose response of boronic acid-containing â€œsmartâ€•hydrogels. Polymer Degradation and Stability, 2014, 99, 219-222.	5.8	11
50	Unusual pressure profiles and fluctuations during shear flows of liquid crystal polymers. Polymer, 1991, 32, 1794-1796.	3.8	8
51	Hydrogel Gold Nanoparticle Switch. IEEE Electron Device Letters, 2018, 39, 1421-1424.	3.9	6
52	Smart hydrogel based microsensing platform for continuous glucose monitoring. , 2010, 2010, 677-9.		5
53	Implantable Biosensor Arrays Based On Smart Hydrogels And Piezoresistive Sensors For Continuous Metabolic Monitoring. Procedia Engineering, 2011, 25, 1008-1011.	1.2	5
54	Effect of Emulsified Water on Gelled Pipeline Restart of Model Waxy Crude Oil Cold Flows. Energy & Fuels, 2019, 33, 10756-10764.	5.1	5

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55	A Sensor Platform for Smart Hydrogels in Biomedical Applications. Proceedings (mdpi), 2018, 2, .	0.2	4
56	Continuous Hydrogel-Based Glucose Sensors With Reduced pH Interference and Contactâ€“Free Signal Transduction. IEEE Sensors Journal, 2019, 19, 2330-2337.	4.7	4
57	In Vivo Monitoring of Glucose Using Ultrasound-Induced Resonance in Implantable Smart Hydrogel Microstructures. ACS Sensors, 2021, 6, 3587-3595.	7.8	4
58	Low-Frequency Dilational Elasticity of the Nematic 4â€˜-Pentyl-4-biphenylcarbonitrile (5CB)/Water Interface. Langmuir, 2007, 23, 7907-7910.	3.5	3
59	Polypeptide grafted hyaluronan: A self-assembling comb-branched polymer constructed from biological components. European Polymer Journal, 2011, 47, 2022-2027.	5.4	3
60	Remote Microwave and Field-Effect Sensing Techniques for Monitoring Hydrogel Sensor Response. Micromachines, 2018, 9, 526.	2.9	3
61	Micromechanical Resonators for Ultrasound-Based Sensors. ECS Meeting Abstracts, 2020, MA2020-01, 2328-2328.	0.0	3
62	Development and relaxation of orientation in sheared concentrated lyotropic solutions of hydroxypropylcellulose in m-cresol. Polymer, 2003, 44, 1203-1210.	3.8	2
63	In vitro investigations of a pH- and ionic-strength-responsive polyelectrolytic hydrogel using a piezoresistive microsensor. Proceedings of SPIE, 2009, 7287, .	0.8	2
64	The effect of hydrogen bonding on oligoleucine structure in water: A molecular dynamics simulation study. European Polymer Journal, 2010, 46, 2310-2320.	5.4	2
65	Biochemical microsensors on the basis of metabolically sensitive hydrogels. Proceedings of SPIE, 2011, , .	0.8	2
66	Effect of chemical composition on the response of zwitterionic glucose sensitive hydrogels studied by design of experiments. Journal of Applied Polymer Science, 2014, 131, .	2.6	2
67	Metal-Oxide-Hydrogel Field-Effect Sensor. , 2018, , .		2
68	Experimental and Theoretical Investigations of Waxy Crude Oil in Steady and Transient Pipe Flows. Industrial & Engineering Chemistry Research, 2020, 59, 13783-13798.	3.7	2
69	A reliable and easy-to-implement optical characterization method for dynamic and static properties of smart hydrogels. Polymer, 2022, 246, 124713.	3.8	2
70	A novel mesophase formed by top-shaped molecules in the bulk and unsupported thin films: A molecular dynamics study. Journal of Chemical Physics, 2006, 124, 124912.	3.0	1
71	Hydrogel-based piezoresistive biochemical microsensors. Proceedings of SPIE, 2010, , .	0.8	1
72	Effect of temperature changes on the performance of ionic strength biosensors based on hydrogels and pressure sensors. , 2011, 2011, 1855-8.		1

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73	Smart Hydrogels Designed for use in Microfabricated Sensor Arrays. Materials Research Society Symposia Proceedings, 2013, 1570, 1.	0.1	1
74	An Improved Design for Chemomechanical Sensors: A Piezoresistive Pressure Sensor with a Mechanical Boss. Chemosensors, 2013, 1, 33-42.	3.6	1
75	Bio-mimetic synthetic cell hydrogel magnetometer. Bioinspiration and Biomimetics, 2019, 14, 026003.	2.9	1
76	Confined Smart Hydrogels for Applications in Chemomechanical Sensors for Physiological Monitoring. Materials Research Society Symposia Proceedings, 2009, 1234, 1.	0.1	0
77	Time Interval and Continuous Testing of Stimuli Responsive Hydrogels. Materials Research Society Symposia Proceedings, 2014, 1622, 153-159.	0.1	0
78	Evaluating the influence of particle morphology and density on the viscosity and injectability of a novel long-acting local anesthetic suspension. Journal of Biomaterials Applications, 0, , 088532822211064.	2.4	0