John J Karnes

List of Publications by Year in descending order

83 papers	3,480 citations	168829 31 h-index	156644 58 g-index
84 all docs	84 docs citations	84 times ranked	2331 citing authors

#	Article	IF	Citations
1	Electrophoretic Deposition of Platinum Nanoparticles using Ethanol-Water Mixtures Significantly Reduces Neural Electrode Impedance. Journal of the Electrochemical Society, 2022, 169, 022504.	1.3	5
2	A Hybrid Quantumâ€“Classical Study of Ion Adsorption at the Copper Electrode. Journal of Physical Chemistry C, 2022, 126, 12413-12423.	1.5	1
3	Deconstructing the Local Intermolecular Ordering and Dynamics of Liquid Chloroform and Bromoform. Journal of Physical Chemistry B, 2021, 125, 3629-3637.	1.2	1
4	Comparing Direct and Pulsed-Direct Current Electrophoretic Deposition on Neural Electrodes: Deposition Mechanism and Functional Influence. Langmuir, 2021, 37, 9724-9734.	1.6	6
5	Antagonistic Role of Aqueous Complexation in the Solvent Extraction and Separation of Rare Earth Ions. ACS Central Science, 2021, 7, 1908-1918.	5.3	18
6	Molecular Dynamics Studies on the Effect of Surface Roughness and Surface Tension on the Thermodynamics and Dynamics of Hydronium Ion Transfer Across the Liquid/Liquid Interface. Journal of Physical Chemistry B, 2020, 124, 8711-8718.	1.2	4
7	On the Network Topology of Cross-Linked Acrylate Photopolymers: A Molecular Dynamics Case Study. Journal of Physical Chemistry B, 2020, 124, 9204-9215.	1.2	15
8	Transfer of an erbium ion across the water/dodecane interface: Structure and thermodynamics via molecular dynamics simulations. Chemical Physics Letters, 2019, 737, 136825.	1.2	11
9	Hydronium ion at the water/1,2-dichloroethane interface: Structure, thermodynamics, and dynamics of ion transfer. Journal of Chemical Physics, 2019, 151, 094701.	1.2	9
10	Nanoscale view of assisted ion transport across the liquidâ€“liquid interface. Proceedings of the National Academy of Sciences of the United States of America, 2019, 116, 18227-18232.	3.3	68
11	Miscibility at the immiscible liquid/liquid interface: A molecular dynamics study of thermodynamics and mechanism. Journal of Chemical Physics, 2018, 148, 034707.	1.2	8
12	Structure and Dynamics of Host/Guest Complexation at the Liquid/Liquid Interface: Implications for Inverse Phase Transfer Catalysis. Journal of Physical Chemistry C, 2017, 121, 4999-5011.	1.5	4
13	On the local intermolecular ordering and dynamics of liquid chloroform. Journal of Molecular Liquids, 2017, 248, 121-126.	2.3	7
14	SN2 Reaction Rate Enhancement by Î²-Cyclodextrin at the Liquid/Liquid Interface. Journal of Physical Chemistry C, 2017, 121, 19209-19217.	1.5	6
15	Geometric and energetic considerations of surface fluctuations during ion transfer across the water-immiscible organic liquid interface. Journal of Chemical Physics, 2016, 145, 014701.	1.2	28
16	Unusual Structure and Dynamics at Silica/Methanol and Silica/Ethanol Interfacesâ€”A Molecular Dynamics and Nonlinear Optical Study. Journal of Physical Chemistry B, 2016, 120, 1569-1578.	1.2	36
17	Reaction Dynamics at Liquid Interfaces. Annual Review of Physical Chemistry, 2015, 66, 165-188.	4.8	53
18	Mechanism and Dynamics of Molecular Exchange at the Silica/Binary Solvent Mixtures Interface. Journal of Physical Chemistry A, 2015, 119, 12073-12081.	1.1	5

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19	Î²-Cyclodextrin at the Water/1-Bromobutane Interface: Molecular Insight into Reverse Phase Transfer Catalysis. Langmuir, 2015, 31, 5086-5092.	1.6	13
20	Recombination, Dissociation, and Transport of Ion Pairs across the Liquid/Liquid Interface. Implications for Phase Transfer Catalysis. Journal of Physical Chemistry B, 2013, 117, 4325-4331.	1.2	36
21	Effect of a Phase Transfer Catalyst on the Dynamics of an S_N2 Reaction. A Molecular Dynamics Study. Journal of Physical Chemistry C, 2011, 115, 2290-2296.	1.5	20
22	A model SN2 reaction â€˜on waterâ€™ does not show rate enhancement. Chemical Physics Letters, 2011, 508, 59-62.	1.2	8
23	A molecular dynamics/EVB study of an SN2 reaction in water clusters. Chemical Physics Letters, 2010, 492, 220-225.	1.2	9
24	Molecular dynamics study of hydrated alkali and halide ions in liquid nitrobenzene. Journal of Electroanalytical Chemistry, 2010, 650, 41-46.	1.9	14
25	The Science and Technologies for Fusion Energy With Lasers and Direct-Drive Targets. IEEE Transactions on Plasma Science, 2010, 38, 690-703.	0.6	51
26	Structure and Dynamics of Hydrated Ion Pairs in a Hydrophobic Environment. Journal of Physical Chemistry B, 2010, 114, 13358-13364.	1.2	8
27	A Molecular Dynamicsâ€“Empirical Valence Bond Study of an S_N2 Reaction at the Water/Chloroform Interface. Journal of Physical Chemistry C, 2010, 114, 1154-1163.	1.5	19
28	Microhydration effects on a model SN2 reaction in a nonpolar solvent. Journal of Chemical Physics, 2009, 130, 194502.	1.2	11
29	Photodissociation of ICN at the Water/Chloroform Interface. Journal of Physical Chemistry A, 2009, 113, 7403-7411.	1.1	11
30	Free Energy of Transfer of Hydrated Ion Clusters from Water to an Immiscible Organic Solvent. Journal of Physical Chemistry B, 2009, 113, 9296-9303.	1.2	44
31	Optimization of Phase Transfer Catalysis for In Situ Coating of Resorcinol Formaldehyde Targets. Fusion Science and Technology, 2009, 55, 472-476.	0.6	2
32	Structure and Dynamics of Hydrated Ions in a Water-Immiscible Organic Solvent. Journal of Physical Chemistry B, 2008, 112, 15801-15806.	1.2	32
33	Empirical valence bond model of an SN2 reaction in polar and nonpolar solvents. Journal of Chemical Physics, 2008, 129, 074508.	1.2	19
34	Solute Orientational Dynamics at the Water/Carbon Tetrachloride Interface. Journal of Physical Chemistry C, 2008, 112, 8969-8975.	1.5	7
35	Solute rotational dynamics at the water liquid/vapor interface. Journal of Chemical Physics, 2007, 127, 204712.	1.2	7
36	Fuzzy Rule-Building Expert System Classification of Fuel Using Solid-Phase Microextraction Two-Way Gas Chromatography Differential Mobility Spectrometric Data. Analytical Chemistry, 2007, 79, 1485-1491.	3.2	39

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37	Molecular Dynamics Study of a Model S_N1 Dissociation Reaction at Liquid/Liquid Interfaces: Effect of Liquid Polarity. Israel Journal of Chemistry, 2007, 47, 115-127.	1.0	2
38	Theoretical Studies of Solute Vibrational Energy Relaxation at Liquid Interfaces. Journal of Physical Chemistry B, 2006, 110, 9375-9382.	1.2	14
39	Static and Dynamic Electronic Spectroscopy at Liquid Interfaces. Chemical Reviews, 2006, 106, 1212-1233.	23.0	87
40	Two-dimensional correlation coefficient mapping in gas chromatography: Jet fuel classification for environmental analysis. Journal of Molecular Structure, 2006, 799, 247-252.	1.8	16
41	Path-integral computations of tunneling processes. Journal of Chemical Physics, 2005, 123, 104103.	1.2	3
42	Photo-induced ion transfer across the liquid/liquid interface. Faraday Discussions, 2005, 129, 47.	1.6	4
43	Hydrogen Bond Dynamics at Water/Organic Liquid Interfaces. Journal of Physical Chemistry B, 2005, 109, 13711-13715.	1.2	70
44	Scattering, Trapping, and Ionization of HCl at the Surface of Liquid Glycerol. Journal of Physical Chemistry B, 2004, 108, 995-1002.	1.2	37
45	Influence of Surface Tension on Adsorbate Molecular Rotation at Liquid/Liquid Interfaces. Journal of Physical Chemistry B, 2004, 108, 15443-15445.	1.2	12
46	Low-Temperature Stability and High-Temperature Reactivity of Iron-Based Coreâ"Shell Nanoparticles. Journal of the American Chemical Society, 2004, 126, 10852-10853.	6.6	24
47	Selective Adsorption of DMSO from an Aqueous Solution at the Surface of Self-Assembled Monolayers. Langmuir, 2003, 19, 5383-5388.	1.6	13
48	Solvation Dynamics at the Interface between Water and Self-assembled Monolayers. Journal of Physical Chemistry B, 2003, 107, 4801-4810.	1.2	15
49	Photodissociation and Vibrational Relaxation of OClO at Liquid Surfaces. Journal of Physical Chemistry B, 2003, 107, 229-236.	1.2	18
50	Molecular dynamics study of the photodissociation and photoisomerization of ICN in water. Journal of Chemical Physics, 2003, 119, 2127-2143.	1.2	30
51	Molecular dynamics study of the vibrational relaxation of OClO in bulk liquids. Journal of Chemical Physics, 2002, 116, 8904-8911.	1.2	41
52	Vibrational relaxation at water surfaces. Journal of Chemical Physics, 2002, 117, 4532-4541.	1.2	26
53	Molecular dynamics study of the photodissociation of OClO in bulk liquids. Journal of Chemical Physics, 2002, 116, 8930-8937.	1.2	16
54	Numerical Simulations of Electron Tunneling Currents in Waterâ€. Journal of Physical Chemistry A, 2002, 106, 10790-10796.	1.1	25

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55	Adsorption at the Interface between Water and Self-Assembled Monolayers:â€‰ Structure and Electronic Spectra. Journal of Physical Chemistry B, 2002, 106, 7898-7907.	1.2	16
56	Molecular dynamics computer simulations of solvation dynamics at liquid/liquid interfaces. Journal of Chemical Physics, 2001, 114, 2817-2824.	1.2	100
57	Organic Monolayers as Mimics of Liquid/Liquid Interfaces:Â Molecular Dynamics Study of Electronic Spectra and Solvent Dynamics. Journal of Physical Chemistry B, 2001, 105, 6412-6419.	1.2	12
58	Photodissociation of ICN at the liquid/vapor interface of chloroform. Journal of Chemical Physics, 2001, 115, 4819-4828.	1.2	23
59	Ion pairing and dissociation at liquid/liquid interfaces: Molecular dynamics and continuum models. Journal of Chemical Physics, 2000, 112, 1474-1482.	1.2	26
60	Structure, thermodynamics, and dynamics of the liquid/vapor interface of water/dimethylsulfoxide mixtures. Journal of Chemical Physics, 1999, 110, 8070-8079.	1.2	74
61	Electron Transmission through Molecular Layers:â€‰ Numerical Simulations and Theoretical Considerations. Accounts of Chemical Research, 1999, 32, 854-861.	7.6	24
62	Transfer of a Tetramethylammonium Ion across the Waterâ^'Nitrobenzene Interface:Â Potential of Mean Force and Nonequilibrium Dynamics. Journal of Physical Chemistry A, 1999, 103, 10274-10279.	1.1	69
63	Molecular dynamics simulation of the water | nitrobenzene interface. Journal of Electroanalytical Chemistry, 1998, 450, 335-345.	1.9	70
64	Structure, Dynamics, and Electronic Spectrum ofN,Nâ€˜-Diethyl-p-nitroaniline at Water Interfaces. A Molecular Dynamics Study. Journal of Physical Chemistry B, 1998, 102, 5145-5151.	1.2	57
65	Solvent Effects on Electronic Spectra at Liquid Interfaces. A Continuum Electrostatic Model. Journal of Physical Chemistry A, 1998, 102, 9500-9506.	1.1	56
66	Electronic spectra of dipolar solutes at liquid/liquid interfaces: Effect of interface structure and polarity. Journal of Chemical Physics, 1997, 107, 5684-5693.	1.2	43
67	MOLECULAR STRUCTURE AND DYNAMICS AT LIQUID-LIQUID INTERFACES. Annual Review of Physical Chemistry, 1997, 48, 407-451.	4.8	271
68	Chemical Reactions and Solvation at Liquid Interfaces:Â A Microscopic Perspective. Chemical Reviews, 1996, 96, 1449-1476.	23.0	361
69	Photodissociation of ICN in liquid chloroform: Molecular dynamics of ground and excited state recombination, cage escape, and hydrogen abstraction reaction. Journal of Chemical Physics, 1995, 103, 2459-2471.	1.2	56
70	Theoretical study of a model isomerization reaction at the liquid/solid interface. Journal of Chemical Physics, 1995, 102, 5292-5300.	1.2	5
71	Transfer of Small Ions across the Water/1,2-Dichloroethane Interface. The Journal of Physical Chemistry, 1995, 99, 9974-9985.	2.9	90
72	Nonequilibrium Free Energy Functions, Recombination Dynamics, and Vibrational Relaxation of I2- in Acetonitrile: Molecular Dynamics of Charge Flow in the Electronically Adiabatic Limit. The Journal of Physical Chemistry, 1995, 99, 7557-7567.	2.9	90

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73	A Molecular Model for an Electron-Transfer Reaction at the Waterâ€”1,2-Dichloroethane Interface. ACS Symposium Series, 1994, , 409-422.	0.5	7
74	Vibrational Spectrum of Water at the Liquid/Vapor Interface. Physical Review Letters, 1994, 73, 2083-2086.	2.9	102
75	Molecular dynamics of adiabatic and nonadiabatic electron transfer at the metalâ€“water interface. Journal of Chemical Physics, 1994, 100, 3545-3555.	1.2	94
76	Dynamics of ion desorption from the liquidâ€”vapor interface of water. Chemical Physics Letters, 1993, 202, 379-383.	1.2	18
77	Adsorption of Na+and Clâ^'at the charged waterâ€“platinum interface. Journal of Chemical Physics, 1993, 98, 2283-2290.	1.2	72
78	Dynamics of ion transfer across a liquidâ€“liquid interface: A comparison between molecular dynamics and a diffusion model. Journal of Chemical Physics, 1992, 96, 577-585.	1.2	64
79	Theoretical study of the water/1,2â€dichloroethane interface: Structure, dynamics, and conformational equilibria at the liquidâ€“liquid interface. Journal of Chemical Physics, 1992, 97, 1432-1445.	1.2	281
80	Molecular dynamics of phenol at the liquidâ€“vapor interface of water. Journal of Chemical Physics, 1991, 94, 5599-5605.	1.2	88
81	Solvation of Na+and Clâ^'at the waterâ€“platinum (100) interface. Journal of Chemical Physics, 1991, 95, 6856-6865.	1.2	65
82	Theoretical study of ion solvation at the water liquidâ€“vapor interface. Journal of Chemical Physics, 1991, 95, 3698-3709.	1.2	134
83	Molecular dynamics study of a model isomerization reaction at the liquidâ€“vapor interface of a Lennardâ€Jones fluid. Journal of Chemical Physics, 1991, 94, 662-669.	1.2	20