Burcu E Gurkan

List of Publications by Year
in descending order

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46 papers	4,778 citations	185998 28 h-index	253896 43 g-index
47 all docs	47 docs citations	47 times ranked	3758 citing authors

#	Article	IF	Citations
1	Deep Eutectic Solvents: A Review of Fundamentals and Applications. Chemical Reviews, 2021, 121, 1232-1285.	23.0	1,334
2	Equimolar CO₂ Absorption by Anion-Functionalized Ionic Liquids. Journal of the American Chemical Society, 2010, 132, 2116-2117.	6.6	791
3	Ionic Liquids for CO₂ Capture and Emission Reduction. Journal of Physical Chemistry Letters, 2010, 1, 3459-3464.	2.1	476
4	Molecular Design of High Capacity, Low Viscosity, Chemically Tunable Ionic Liquids for CO₂ Capture. Journal of Physical Chemistry Letters, 2010, 1, 3494-3499.	2.1	378
5	Experimental Measurements of Amine-Functionalized Anion-Tethered Ionic Liquids with Carbon Dioxide. Industrial & Engineering Chemistry Research, 2011, 50, 111-118.	1.8	261
6	Effect of Water and Temperature on Absorption of CO₂ by Amine-Functionalized Anion-Tethered Ionic Liquids. Journal of Physical Chemistry B, 2011, 115, 9140-9150.	1.2	240
7	Metal-Free Deep Eutectic Solvents: Preparation, Physical Properties, and Significance. Journal of Physical Chemistry Letters, 2019, 10, 7956-7964.	2.1	118
8	Reaction kinetics of CO2 absorption in to phosphonium based anion-functionalized ionic liquids. Physical Chemistry Chemical Physics, 2013, 15, 7796.	1.3	96
9	Quinone Reduction in Ionic Liquids for Electrochemical CO₂ Separation. ACS Sustainable Chemistry and Engineering, 2015, 3, 1394-1405.	3.2	89
10	Liquid Structure and Transport Properties of the Deep Eutectic Solvent Ethaline. Journal of Physical Chemistry B, 2020, 124, 5251-5264.	1.2	84
11	Solvation Structure and Dynamics of Li⁺ in Ternary Ionic Liquidâ€“Lithium Salt Electrolytes. Journal of Physical Chemistry B, 2019, 123, 516-527.	1.2	62
12	Potential dependent capacitance of [EMIM][TFSI], [N₁₁₁₄][TFSI] and [PYR₁₃][TFSI] ionic liquids on glassy carbon. Physical Chemistry Chemical Physics, 2019, 21, 3712-3720.	1.3	61
13	Capsules of Reactive Ionic Liquids for Selective Capture of Carbon Dioxide at Low Concentrations. ACS Applied Materials & Interfaces, 2020, 12, 19184-19193.	4.0	53
14	Carbon Capsules of Ionic Liquid for Enhanced Performance of Electrochemical Double-Layer Capacitors. ACS Applied Materials & Interfaces, 2018, 10, 16707-16714.	4.0	52
15	Hybrid Ionic Liquid Capsules for Rapid CO₂ Capture. Industrial & Engineering Chemistry Research, 2019, 58, 10503-10509.	1.8	48
16	Evolution of microscopic heterogeneity and dynamics in choline chloride-based deep eutectic solvents. Nature Communications, 2022, 13, 219.	5.8	42
17	Cooperatively assembled, nitrogen-doped, ordered mesoporous carbon/iron oxide nanocomposites for low-cost, long cycle life sodium-ion batteries. Carbon, 2017, 116, 286-293.	5.4	40
18	CO₂-Responsive Microemulsions Based on Reactive Ionic Liquids. Langmuir, 2014, 30, 4267-4272.	1.6	39

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19	Pyrrolidinium Ionic Liquid Electrolyte with Bis(trifluoromethylsulfonyl)imide and Bis(fluorosulfonyl)imide Anions: Lithium Solvation and Mobility, and Performance in Lithium Metalâ€“Lithium Iron Phosphate Batteries. Industrial & Engineering Chemistry Research, 2019, 58, 22587-22597.	1.8	37
20	Deep Eutectic Solvent Formed by Imidazolium Cyanopyrrolide and Ethylene Glycol for Reactive CO₂ Separations. ACS Sustainable Chemistry and Engineering, 2021, 9, 1090-1098.	3.2	37
21	From Salt in Solution to Solely Ions: Solvation of Methyl Viologen in Deep Eutectic Solvents and Ionic Liquids. Journal of Physical Chemistry B, 2020, 124, 6348-6357.	1.2	35
22	Enhanced gravimetric CO₂ capacity and viscosity for ionic liquids with cyanopyrrolide anion. AICHE Journal, 2015, 61, 2280-2285.	1.8	34
23	Roll-to-roll fabrication of high surface area mesoporous carbon with process-tunable pore texture for optimization of adsorption capacity of bulky organic dyes. Microporous and Mesoporous Materials, 2016, 227, 57-64.	2.2	34
24	Facilitated Transport Membranes With Ionic Liquids for CO2 Separations. Frontiers in Chemistry, 2020, 8, 637.	1.8	33
25	Graphene oxide reinforced facilitated transport membrane with poly(ionic liquid) and ionic liquid carriers for CO2/N2 separation. Journal of Membrane Science, 2021, 638, 119652.	4.1	33
26	Solvation Dynamics of Wet Ethaline: Water is the Magic Component. Journal of Physical Chemistry B, 2021, 125, 8888-8901.	1.2	32
27	Force field for the atomistic simulation of the properties of hydrazine, organic hydrazine derivatives, and energetic hydrazinium ionic liquids. Pure and Applied Chemistry, 2009, 81, 1799-1828.	0.9	30
28	Enhanced Cycle Performance of Quinone-Based Anodes for Sodium Ion Batteries by Attachment to Ordered Mesoporous Carbon and Use of Ionic Liquid Electrolyte. Journal of the Electrochemical Society, 2017, 164, H5093-H5099.	1.3	29
29	Perspective and challenges in electrochemical approaches for reactive CO2 separations. IScience, 2021, 24, 103422.	1.9	28
30	Electroanalytical Investigation of the Electrodeâ€“Electrolyte Interface of Quaternary Ammonium Ionic Liquids: Impact of Alkyl Chain Length and Ether Functionality. Journal of Physical Chemistry C, 2020, 124, 5613-5623.	1.5	25
31	Deep Eutectic Solvents: A New Class of Versatile Liquids. Journal of Physical Chemistry B, 2020, 124, 11313-11315.	1.2	19
32	Do Deep Eutectic Solvents Behave Like Ionic Liquid Electrolytes? A Perspective from the Electrode-Electrolyte Interface. Journal of the Electrochemical Society, 2021, 168, 026503.	1.3	19
33	Refined Classical Force Field for Choline Chloride and Ethylene Glycol Mixtures over Wide Composition Range. Journal of Chemical & Engineering Data, 2022, 67, 1864-1871.	1.0	19
34	Improved accessibility of porous carbon electrodes with surfactant ionic liquids for supercapacitors. Journal of Applied Electrochemistry, 2019, 49, 151-162.	1.5	15
35	Feasibility of TEMPO-functionalized imidazolium, ammonium and pyridinium salts as redox-active carriers in ethaline deep eutectic solvent for energy storage. Molecular Systems Design and Engineering, 2020, 5, 1147-1157.	1.7	13
36	Capsules with polyurea shells and ionic liquid cores for <scp>CO₂</scp> capture. Journal of Polymer Science, 2021, 59, 2980-2989.	2.0	11

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37	Perspectiveâ€"Hydrogen Bonded Concentrated Electrolytes for Redox Flow Batteries: Limitations and Prospects. Journal of the Electrochemical Society, 2022, 169, 030520.	1.3	7
38	Electroâ€"Oxidation of Nitroxide Radicals: Adsorptionâ€"Mediated Charge Transfer Probed Using SERS and Potentiometry. Journal of the Electrochemical Society, 2022, 169, 053511.	1.3	7
39	Energetics of Li+ Coordination with Asymmetric Anions in Ionic Liquids by Density Functional Theory. Frontiers in Energy Research, 2021, 9, .	1.2	5
40	Smooth Modified Surfaces of Silicon for the Study of Ionic Liquid Interfaces by Neutron Reflectometry. ACS Applied Electronic Materials, 2022, 4, 2217-2226.	2.0	5
41	Eutectic Ionic Liquids for Lithium Batteries. ECS Transactions, 2017, 80, 1139-1146.	0.3	2
42	Electrochemical Behavior of Redox Active Organic Molecules in Ethaline Deep Eutectic Solvent. ECS Meeting Abstracts, 2019, MA2019-02, 2177-2177.	0.0	2
43	Stabilization of the Ionic Liquid â€" Electrode Interface from Large Nonpolar Groups in Ionic Liquids and Ionic Liquid Mixtures. ECS Meeting Abstracts, 2019, , .	0.0	0
44	Spectroscopic and Electrochemical Investigation of Adsorbed Nitroxide Radicals. ECS Meeting Abstracts, 2021, MA2021-02, 1901-1901.	0.0	0
45	Viologen Derivatives in Deep Eutectic Solvents for Energy Storage. ECS Meeting Abstracts, 2021, MA2021-02, 1460-1460.	0.0	0
46	Liquid Structure and Transport Properties of the Deep Eutectic Solvent Ethaline. ECS Meeting Abstracts, 2020, MA2020-02, 2910-2910.	0.0	0