

# Sahil Garg

## List of Publications by Year in descending order

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41  
papers

1,335  
citations

361413

20  
h-index

361022

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42  
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42  
docs citations

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times ranked

1171  
citing authors

#	ARTICLE	IF	CITATIONS
1	Advances and challenges in electrochemical CO <sub>2</sub> reduction processes: an engineering and design perspective looking beyond new catalyst materials. <i>Journal of Materials Chemistry A</i> , 2020, 8, 1511-1544.	10.3	305
2	The role of electrode wettability in electrochemical reduction of carbon dioxide. <i>Journal of Materials Chemistry A</i> , 2021, 9, 19369-19409.	10.3	95
3	Experimental data, thermodynamic and neural network modeling of CO <sub>2</sub> solubility in aqueous sodium salt of L-phenylalanine. <i>Journal of CO<sub>2</sub> Utilization</i> , 2017, 19, 146-156.	6.8	60
4	Toward Excellence of Transition Metal-Based Catalysts for CO <sub>2</sub> Electrochemical Reduction: An Overview of Strategies and Rationales. <i>Small Methods</i> , 2020, 4, 2000033.	8.6	60
5	Experimental measurements and modeling of supercritical CO <sub>2</sub> adsorption on 13X and 5A zeolites. <i>Journal of Natural Gas Science and Engineering</i> , 2018, 50, 115-127.	4.4	58
6	Thermophysical properties of concentrated aqueous solution of N-methyldiethanolamine (MDEA), piperazine (PZ), and ionic liquids hybrid solvent for CO <sub>2</sub> capture. <i>Journal of Molecular Liquids</i> , 2017, 229, 221-229.	4.9	54
7	Application of artificial neural networks (ANN) for vapor-liquid-solid equilibrium prediction for CH <sub>4</sub> -CO <sub>2</sub> binary mixture. , 2019, 9, 67-78.		52
8	Experimental and Neural Network Modeling of Partial Uptake for a Carbon Dioxide/Methane/Water Ternary Mixture on 13X Zeolite. <i>Energy Technology</i> , 2017, 5, 1373-1391.	3.8	51
9	VLE of CO <sub>2</sub> in aqueous potassium salt of L-phenylalanine: Experimental data and modeling using modified Kent-Eisenberg model. <i>Journal of Natural Gas Science and Engineering</i> , 2016, 34, 864-872.	4.4	42
10	Selected physical properties of aqueous potassium salt of L-phenylalanine as a solvent for CO <sub>2</sub> capture. <i>Chemical Engineering Research and Design</i> , 2016, 113, 169-181.	5.6	40
11	High-pressure absorption study of CO <sub>2</sub> in aqueous N-methyldiethanolamine (MDEA) and MDEA-piperazine (PZ)-1-butyl-3-methylimidazolium trifluoromethanesulfonate [bmim][OTf] hybrid solvents. <i>Journal of Molecular Liquids</i> , 2018, 249, 1236-1244.	4.9	36
12	Modulated Sn Oxidation States over a Cu <sub>2</sub> O-Derived Substrate for Selective Electrochemical CO <sub>2</sub> Reduction. <i>ACS Applied Materials &amp; Interfaces</i> , 2020, 12, 22760-22770.	8.0	36
13	Cobalt Electrochemical Recovery from Lithium Cobalt Oxides in Deep Eutectic Choline Chloride+Urea Solvents. <i>ChemSusChem</i> , 2021, 14, 2972-2983.	6.8	33
14	Experimental and correlation of viscosity and refractive index of non-aqueous system of diethanolamine (DEA) and dimethylformamide (DMF) for CO <sub>2</sub> capture. <i>Journal of Molecular Liquids</i> , 2018, 250, 162-170.	4.9	32
15	Dynamic viscosity of Titania nanotubes dispersions in ethylene glycol/water-based nanofluids: Experimental evaluation and predictions from empirical correlation and artificial neural network. <i>International Communications in Heat and Mass Transfer</i> , 2020, 118, 104882.	5.6	31
16	Effects of microporous layer on electrolyte flooding in gas diffusion electrodes and selectivity of CO <sub>2</sub> electrolysis to CO. <i>Journal of Power Sources</i> , 2022, 522, 230998.	7.8	31
17	Catalyst-Electrolyte Interactions in Aqueous Reline Solutions for Highly Selective Electrochemical CO <sub>2</sub> Reduction. <i>ChemSusChem</i> , 2020, 13, 304-311.	6.8	29
18	High-pressure Solubility of Carbon Dioxide in Aqueous Sodium L-Proline Solution. <i>Procedia Engineering</i> , 2016, 148, 580-587.	1.2	27

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19	Synthesis and mixed integer programming based optimization of cryogenic packed bed pipeline network for purification of natural gas. <i>Journal of Cleaner Production</i> , 2018, 171, 795-810.	9.3	23
20	Experimental and correlation study of selected physical properties of aqueous blends of potassium sarcosinate and 2-piperidineethanol as a solvent for CO <sub>2</sub> capture. <i>Chemical Engineering Research and Design</i> , 2017, 118, 121-130.	5.6	22
21	Investigation of thermophysical properties for aqueous blends of sarcosine with 1-(2-aminoethyl) piperazine and diethylenetriamine as solvents for CO <sub>2</sub> absorption. <i>Journal of Molecular Liquids</i> , 2019, 278, 584-591.	4.9	22
22	Thermophysical properties of aqueous N -methyldiethanolamine (MDEA) and ionic liquids 1-butyl-3-methylimidazolium trifluoromethanesulfonate [bmim][OTf], 1-butyl-3-methylimidazolium acetate [bmim][Ac] hybrid solvents for CO <sub>2</sub> capture. <i>Chemical Engineering Research and Design</i> , 2017, 121, 69-80.	5.6	21
23	Unveiling the effects of dimensionality of tin oxide-derived catalysts on CO <sub>2</sub> reduction by using gas-diffusion electrodes. <i>Reaction Chemistry and Engineering</i> , 2021, 6, 345-352.	3.7	20
24	Multi-objective optimization of thermophysical properties of multiwalled carbon nanotubes based nanofluids. <i>Chemosphere</i> , 2022, 286, 131690.	8.2	20
25	Volumetric properties of non-aqueous binary mixture of diethanolamine (DEA) and dimethylformamide (DMF). <i>Journal of Environmental Chemical Engineering</i> , 2018, 6, 6390-6398.	6.7	18
26	Thermophysical Properties of Aqueous 1-Butyl-3-Methylimidazolium Acetate [BMIM] [AC] + Monoethanolamine (MEA) Hybrid as a Solvent for CO <sub>2</sub> Capture. <i>Procedia Engineering</i> , 2016, 148, 1326-1331.	1.2	17
27	Solubility of CO <sub>2</sub> in aqueous sodium Î <sup>2</sup> -alaninate: Experimental study and modeling using Kent Eisenberg model. <i>Chemical Engineering Research and Design</i> , 2018, 131, 385-392.	5.6	17
28	Physical Properties of Aqueous Sodium Salt Solution of Î±-Methylalanine (Na-AMALA). <i>Procedia Engineering</i> , 2016, 148, 444-450.	1.2	14
29	Surface Tension and Derived Surface Thermodynamic Properties of Aqueous Sodium Salt of L-Phenylalanine. <i>Indian Journal of Science and Technology</i> , 2016, 9, .	0.7	13
30	Measurement and prediction of physical properties of aqueous sodium salt of L-phenylalanine. <i>Journal of the Serbian Chemical Society</i> , 2017, 82, 905-919.	0.8	12
31	Physical properties of aqueous solutions of potassium l-prolinate from 298.15 to 343.15 K at atmospheric pressure. <i>Chemical Papers</i> , 2017, 71, 1185-1194.	2.2	11
32	Physical properties of aqueous blend of diethanolamine and sarcosine: experimental and correlation study. <i>Chemical Papers</i> , 2017, 71, 1799-1807.	2.2	9
33	Experimental studies and artificial neural network modeling of surface tension of aqueous sodium l-prolinate solutions and piperazine blends. <i>Chinese Journal of Chemical Engineering</i> , 2019, 27, 1904-1911.	3.5	7
34	An experimental and modeling approach to investigate CO <sub>2</sub> solubility in blended aqueous solutions of 2-amino-2-hydroxymethyl-1, 3-propanediol (AHPD) and piperazine (PZ). <i>Cleaner Engineering and Technology</i> , 2020, 1, 100004.	4.0	5
35	Understanding the Effects of Anion Interactions with Ag Electrodes on Electrochemical CO <sub>2</sub> Reduction in Choline Halide Electrolytes. <i>ChemSusChem</i> , 2021, 14, 2601-2611.	6.8	5
36	Physicochemical and thermodynamic properties of aqueous blends of 3-aminopropyl triethoxysilane and amines at 298.15–333.15 K. <i>Journal of Molecular Liquids</i> , 2021, 332, 115440.	4.9	4

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37	Catalyst-Electrolyte Interactions in Aqueous Reline Solutions for Highly Selective Electrochemical CO <sub>2</sub> Reduction. ChemSusChem, 2020, 13, 282-282.	6.8	2
38	Initial solubility & density evaluation of Non-Aqueous system of amino acid salts for CO <sub>2</sub> capture: potassium proline blended with ethanol and ethylene glycol. IOP Conference Series: Earth and Environmental Science, 2018, 154, 012020.	0.3	1
39	Modifying Catalyst-Electrolyte Interactions for Enhanced Electrochemical CO <sub>2</sub> Reduction. ECS Meeting Abstracts, 2020, MA2020-01, 1518-1518.	0.0	0
40	Operando Study of MEA-Based CO <sub>2</sub> Electrolyser over Copper Based Gas Diffusion Electrodes. ECS Meeting Abstracts, 2022, MA2022-01, 1765-1765.	0.0	0
41	Understanding the Temperature Effects on CO <sub>2</sub> Electrolysis Performance at High Current Densities. ECS Meeting Abstracts, 2022, MA2022-01, 1783-1783.	0.0	0