Ambarish R Kulkarni

List of Publications by Year
in descending order

36 papers	4,837 citations	236925 25 h-index	345221 36 g-index
37 all docs	37 docs citations	37 times ranked	6868 citing authors

#	Article	IF	Citations
1	Understanding Catalytic Activity Trends in the Oxygen Reduction Reaction. Chemical Reviews, 2018, 118, 2302-2312.	47.7	1,666
2	Robust and conductive two-dimensional metalâ˘organic frameworks with exceptionally high volumetric and areal capacitance. Nature Energy, 2018, 3, 30-36.	39.5	786
3	Understanding trends in Câ€“H bond activation in heterogeneous catalysis. Nature Materials, 2017, 16, 225-229.	27.5	387
4	Direct Methane to Methanol: The Selectivityâ€“Conversion Limit and Design Strategies. ACS Catalysis, 2018, 8, 6894-6907.	11.2	211
5	Role of Amine Structure on Carbon Dioxide Adsorption from Ultradilute Gas Streams such as Ambient Air. ChemSusChem, 2012, 5, 2058-2064.	6.8	180
6	Monocopper Active Site for Partial Methane Oxidation in Cu-Exchanged 8MR Zeolites. ACS Catalysis, 2016, 6, 6531-6536.	11.2	173
7	Analysis of Equilibrium-Based TSA Processes for Direct Capture of CO₂ from Air. Industrial & Engineering Chemistry Research, 2012, 51, 8631-8645.	3.7	163
8	An electronic structure descriptor for oxygen reactivity at metal and metal-oxide surfaces. Surface Science, 2019, 681, 122-129.	1.9	145
9	Theoretical Insights into the Selective Oxidation of Methane to Methanol in Copper-Exchanged Mordenite. ACS Catalysis, 2016, 6, 3760-3766.	11.2	139
10	Cation-exchanged zeolites for the selective oxidation of methane to methanol. Catalysis Science and Technology, 2018, 8, 114-123.	4.1	135
11	Mechanistic insights into heterogeneous methane activation. Physical Chemistry Chemical Physics, 2017, 19, 3575-3581.	2.8	89
12	Theoretical Approaches to Describing the Oxygen Reduction Reaction Activity of Single-Atom Catalysts. Journal of Physical Chemistry C, 2018, 122, 29307-29318.	3.1	68
13	Supported Metal Pair-Site Catalysts. ACS Catalysis, 2020, 10, 9065-9085.	11.2	67
14	Screening of Copper Open Metal Site MOFs for Olefin/Paraffin Separations Using DFT-Derived Force Fields. Journal of Physical Chemistry C, 2016, 120, 23044-23054.	3.1	61
15	Identification of High-CO₂-Capacity Cationic Zeolites by Accurate Computational Screening. Chemistry of Materials, 2016, 28, 3887-3896.	6.7	57
16	Single Metal Atoms Anchored in Twoâ€Dimensional Materials: Bifunctional Catalysts for Fuel Cell Applications. ChemCatChem, 2018, 10, 3034-3039.	3.7	50
17	Ultrathin Cobalt Oxide Overlayer Promotes Catalytic Activity of Cobalt Nitride for the Oxygen Reduction Reaction. Journal of Physical Chemistry C, 2018, 122, 4783-4791.	3.1	46
18	Nature of Lone-Pairâ€“Surface Bonds and Their Scaling Relations. Inorganic Chemistry, 2018, 57, 7222-7238.	4.0	43

#	ARTICLE	IF	CITATIONS
19	Improved Oxygen Reduction Reaction Activity of Nanostructured CoS₂ through Electrochemical Tuning. ACS Applied Energy Materials, 2019, 2, 8605-8614.	5.1	42
20	Two-Dimensional Conductive Ni-HAB as a Catalyst for the Electrochemical Oxygen Reduction Reaction. ACS Applied Materials & Interfaces, 2020, 12, 39074-39081.	8.0	41
21	Computational Prediction of Metal Organic Frameworks Suitable for Molecular Infiltration as a Route to Development of Conductive Materials. Journal of Physical Chemistry Letters, 2015, 6, 1586-1591.	4.6	39
22	Trends in Oxygen Electrocatalysis of <i>3â€‰d</i>â€Layered (Oxy)(Hydro)Oxides. ChemCatChem, 2019, 11, 3423-3431.	3.7	33
23	Circumventing Scaling Relations in Oxygen Electrochemistry Using Metalâ€“Organic Frameworks. Journal of Physical Chemistry Letters, 2020, 11, 10029-10036.	4.6	32
24	Screening Diffusion of Small Molecules in Flexible Zeolitic Imidazolate Frameworks Using a DFT-Parameterized Force Field. Journal of Physical Chemistry C, 2019, 123, 9153-9167.	3.1	30
25	A Theory-Guided X-ray Absorption Spectroscopy Approach for Identifying Active Sites in Atomically Dispersed Transition-Metal Catalysts. Journal of the American Chemical Society, 2021, 143, 20144-20156.	13.7	28
26	Bridging adsorption analytics and catalytic kinetics for metal-exchanged zeolites. Nature Catalysis, 2021, 4, 144-156.	34.4	27
27	Metal-promoted Mo₆S₈ clusters: a platform for probing ensemble effects on the electrochemical conversion of CO₂ and CO to methanol. Materials Horizons, 2020, 7, 193-202.	12.2	25
28	Near-Surface Imaging of the Multicomponent Gas Phase above a Silver Catalyst during Partial Oxidation of Methanol. ACS Catalysis, 2021, 11, 155-168.	11.2	16
29	Machine Learning-Assisted Sampling of Surfance-Enhanced Raman Scattering (SERS) Substrates Improve Data Collection Efficiency. Applied Spectroscopy, 2022, 76, 485-495.	2.2	11
30	X-ray absorption spectroscopy study of the electronic structure and local coordination of 1st row transition metal-promoted Chevrel-phase sulfides. Journal of Coordination Chemistry, 2019, 72, 1322-1335.	2.2	9
31	Cs-RHO Goes from Worst to Best as Water Enhances Equilibrium CO₂ Adsorption via Phase Change. Langmuir, 2021, 37, 13903-13908.	3.5	9
32	Highly Active Bifunctional Oxygen Electrocatalytic Sites Realized in Ceriaâ€“Functionalized Graphene. Advanced Sustainable Systems, 2020, 4, 2000048.	5.3	8
33	Atomically Dispersed Platinum in Surface and Subsurface Sites on MgO Have Contrasting Catalytic Properties for CO Oxidation. Journal of Physical Chemistry Letters, 2022, 13, 3896-3903.	4.6	7
34	Direct solid-state nucleation and charge-transport dynamics of alkali metal-intercalated M₂Mo₆S₆ (M = K, Rb, Cs) nanorods. Journal of Materials Chemistry C, 2020, 8, 10742-10748.	5.5	6
35	Near-Surface Gas-Phase Methoxymethanol Is Generated by Methanol Oxidation over Pd-Based Catalysts. Journal of Physical Chemistry Letters, 2021, 12, 11252-11258.	4.6	5
36	Simplifying computational workflows with the Multiscale Atomic Zeolite Simulation Environment (MAZE). SoftwareX, 2021, 16, 100797.	2.6	3