DanteÂ A Simonetti

List of Publications by Year
in descending order

41 papers	2,238 citations	430874 18 h-index	265206 42 g-index
43 all docs	43 docs citations	43 times ranked	2598 citing authors

#	Article	IF	Citations
1	Catalytic Conversion of Biomass to Monofunctional Hydrocarbons and Targeted Liquid-Fuel Classes. Science, 2008, 322, 417-421.	12.6	840
2	The role of rhenium in the conversion of glycerol to synthesis gas over carbon supported platinumâ€“rhenium catalysts. Journal of Catalysis, 2008, 260, 164-177.	6.2	171
3	Catalytic conversion of biomass-derived carbohydrates to fuels and chemicals by formation and upgrading of mono-functional hydrocarbon intermediates. Catalysis Today, 2009, 147, 115-125.	4.4	127
4	Catalytic Production of Liquid Fuels from Biomassâ€Derived Oxygenated Hydrocarbons: Catalytic Coupling at Multiple Length Scales. Catalysis Reviews - Science and Engineering, 2009, 51, 441-484.	12.9	110
5	Coupling of glycerol processing with Fischerâ€“Tropsch synthesis for production of liquid fuels. Green Chemistry, 2007, 9, 1073.	9.0	103
6	An integrated catalytic approach for the production of hydrogen by glycerol reforming coupled with water-gas shift. Applied Catalysis B: Environmental, 2009, 90, 693-698.	20.2	103
7	Catalytic Strategies for Changing the Energy Content and Achieving Cï¿¿C Coupling in Biomassâ€Derived Oxygenated Hydrocarbons. ChemSusChem, 2008, 1, 725-733.	6.8	93
8	Mechanistic details of acid-catalyzed reactions and their role in the selective synthesis of triptane and isobutane from dimethyl ether. Journal of Catalysis, 2011, 277, 173-195.	6.2	81
9	Reaction Kinetics of Ethylene Glycol Reforming over Platinum in the Vapor versus Aqueous Phases. Journal of Physical Chemistry C, 2011, 115, 961-971.	3.1	68
10	Acid strength and solvation effects on methylation, hydride transfer, and isomerization rates during catalytic homologation of C1 species. Journal of Catalysis, 2012, 285, 19-30.	6.2	57
11	Saline Water-Based Mineralization Pathway for Gigatonne-Scale CO₂ Management. ACS Sustainable Chemistry and Engineering, 2021, 9, 1073-1089.	6.7	53
12	How Microstructure and Pore Moisture Affect Strength Gain in Portlandite-Enriched Composites That Mineralize CO₂. ACS Sustainable Chemistry and Engineering, 2019, 7, 13053-13061.	6.7	44
13	Selective Homogeneous and Heterogeneous Catalytic Conversion of Methanol/Dimethyl Ether to Triptane. Accounts of Chemical Research, 2012, 45, 653-662.	15.6	39
14	Catalytic Coâ€Homologation of Alkanes and Dimethyl Ether and Promotion by Adamantane as a Hydride Transfer Coâ€Catalyst. ChemCatChem, 2011, 3, 704-718.	3.7	26
15	Controls on CO₂ Mineralization Using Natural and Industrial Alkaline Solids under Ambient Conditions. ACS Sustainable Chemistry and Engineering, 2021, 9, 10727-10739.	6.7	25
16	Selective sulfur removal from semi-dry flue gas desulfurization coal fly ash for concrete and carbon dioxide capture applications. Waste Management, 2021, 121, 117-126.	7.4	23
17	Effect of heating rate on kinetics of high-temperature reactions: Mo-Si system. AICHE Journal, 2005, 51, 261-270.	3.6	22
18	Effects of Morphology and Surface Properties of Copper Oxide on the Removal of Hydrogen Sulfide from Gaseous Streams. Industrial & Engineering Chemistry Research, 2019, 58, 18836-18847.	3.7	21

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19	Catalytic routes to fuels from C₁ and oxygenate molecules. Faraday Discussions, 2017, 197, 9-39.	3.2	20
20	Improved Sorptionâ€Enhanced Steam Methane Reforming via Calcium Oxideâ€“Based Sorbents with Targeted Morphology. Energy Technology, 2019, 7, 1800807.	3.8	16
21	The effects of (diâ€,triâ€valent)â€cation partitioning and intercalant anionâ€type on the solubility of hydrotalcites. Journal of the American Ceramic Society, 2020, 103, 6025-6039.	3.8	14
22	New insights into the mechanisms of carbon dioxide mineralization by portlandite. AICHE Journal, 2021, 67, e17160.	3.6	14
23	Enhancing Polyvalent Cation Rejection Using Perfluorophenylazide-Grafted-Copolymer Membrane Coatings. ACS Applied Materials & Interfaces, 2020, 12, 42030-42040.	8.0	11
24	Isothermal Stimulation of Mineral Dissolution Processes by Acoustic Perturbation. Journal of Physical Chemistry C, 2018, 122, 28665-28673.	3.1	10
25	Direct observation of the kinetics of gasâ€“solid reactions using in situ kinetic and spectroscopic techniques. Reaction Chemistry and Engineering, 2018, 3, 668-675.	3.7	8
26	Insights into Copper Sulfide Formation from Cu and S K edge XAS and DFT studies. Inorganic Chemistry, 2020, 59, 15276-15288.	4.0	8
27	Fly Ashâ€“Ca(OH)₂ Reactivity in Hypersaline NaCl and CaCl₂ Brines. ACS Sustainable Chemistry and Engineering, 2021, 9, 8561-8571.	6.7	7
28	Atomic Dislocations and Bond Rupture Govern Dissolution Enhancement under Acoustic Stimulation. ACS Applied Materials & Interfaces, 2020, 12, 55399-55410.	8.0	6
29	Implementation of Ion Exchange Processes for Carbon Dioxide Mineralization Using Industrial Waste Streams. Frontiers in Energy Research, 2020, 8, .	2.3	6
30	Impacts of metal oxide additives on the capacity and stability of calcium oxide based materials for the reactive sorption of CO2. Sustainable Energy and Fuels, 2021, 5, 767-778.	4.9	6
31	The role of gas flow distributions on CO₂ mineralization within monolithic cemented composites: coupled CFD-factorial design approach. Reaction Chemistry and Engineering, 2021, 6, 494-504.	3.7	5
32	A Career in Catalysis: James A. Dumesic. ACS Catalysis, 2021, 11, 2310-2339.	11.2	5
33	Dissolution Amplification by Resonance and Cavitational Stimulation at Ultrasonic and Megasonic Frequencies. Journal of Physical Chemistry C, 2022, 126, 3432-3442.	3.1	5
34	Targeted morphology of copper oxide based electrospun nanofibers. Chemical Engineering Science, 2020, 219, 115547.	3.8	4
35	Linear Driving Force Approximations as Predictive Models for Reactive Sorption. Energy Technology, 2020, 8, 1900718.	3.8	3
36	Predicting zeolitesâ€™ stability during the corrosion of nuclear waste immobilization glasses: Comparison with glass corrosion experiments. Journal of Nuclear Materials, 2021, 547, 152813.	2.7	3

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37	Lanthanum induced lattice strain improves hydrogen sulfide capacities of copper oxide adsorbents. AICHE Journal, 2021, 67, e17484.	3.6	3
38	Process Simulations Reveal the Carbon Dioxide Removal Potential of a Process That Mineralizes Industrial Waste Streams via an Ion Exchange-Based Regenerable pH Swing. ACS Sustainable Chemistry and Engineering, 2022, 10, 6255-6264.	6.7	3
39	How Brine Composition Affects Fly Ash Reactions: The Influence of (Cat-, An-)ion Type. Advances in Civil Engineering Materials, 2022, 11, 619-638.	0.6	3
40	Mineral Dissolution under Electric Stimulation. Journal of Physical Chemistry C, 2020, 124, 16515-16523.	3.1	1
41	Rapid Elemental Extraction from Ordered and Disordered Solutes by Acoustically-Stimulated Dissolution. ACS Engineering Au, 0, , .	5.1	1