Ronald R Chance

List of Publications by Year
in descending order

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46 papers	8,328 citations	136940 32 h-index	223791 46 g-index
47 all docs	47 docs citations	47 times ranked	6423 citing authors

#	Article	IF	Citations
1	Chain-length dependence of electronic and electrochemical properties of conjugated systems: polyacetylene, polyphenylene, polythiophene, and polypyrrole. Journal of the American Chemical Society, 1983, 105, 6555-6559.	13.7	1,156
2	Highly conducting polyparaphenylene, polypyrrole, and polythiophene chains: Anab initiostudy of the geometry and electronic-structure modifications upon doping. Physical Review B, 1984, 29, 6761-6773.	3.2	693
3	Optical Nonlinearities in One-Dimensional-Conjugated Polymer Crystals. Physical Review Letters, 1976, 36, 956-959.	7.8	623
4	Comparative theoretical study of the doping of conjugated polymers: Polarons in polyacetylene and polyparaphenylene. Physical Review B, 1982, 26, 5843-5854.	3.2	568
5	Highly conducting chargeâ€transfer complexes of poly(pâ€phenylene). Journal of Chemical Physics, 1979, 71, 1506-1507.	3.0	433
6	A nonempirical effective Hamiltonian technique for polymers: Application to polyacetylene and polydiacetylene. Journal of Chemical Physics, 1981, 75, 255-267.	3.0	347
7	Structural basis for semiconducting and metallic polymer dopant systems. Chemical Reviews, 1982, 82, 209-222.	47.7	332
8	Electrical and optical properties of highly conducting charge-transfer complexes of poly(p-phenylene). Synthetic Metals, 1980, 1, 307-320.	3.9	318
9	A planarâ€“nonplanar conformational transition in conjugated polymer solutions. Journal of Chemical Physics, 1979, 70, 4387-4392.	3.0	314
10	Alcohol and water adsorption in zeolitic imidazolate frameworks. Chemical Communications, 2013, 49, 3245.	4.1	278
11	Exploring the Framework Hydrophobicity and Flexibility of ZIF-8: From Biofuel Recovery to Hydrocarbon Separations. Journal of Physical Chemistry Letters, 2013, 4, 3618-3622.	4.6	277
12	Comments on the classical theory of energy transfer. Journal of Chemical Physics, 1975, 62, 2245-2253.	3.0	238
13	Thermochromism in a polydiacetylene crystal. Journal of Chemical Physics, 1977, 67, 3616-3618.	3.0	222
14	Ab initio effective Hamiltonian study of the electronic properties of conjugated polymers. Journal of Chemical Physics, 1982, 76, 3673-3678.	3.0	207
15	Thermal effects on the optical properties of single crystals and solutionâ€cast films of urethane substituted polydiacetylenes. Journal of Chemical Physics, 1979, 71, 206-211.	3.0	204
16	Chromism in Polydiacetylene Solutions and Crystals. Macromolecules, 1980, 13, 396-398.	4.8	200
17	Highly Tunable Molecular Sieving and Adsorption Properties of Mixed-Linker Zeolitic Imidazolate Frameworks. Journal of the American Chemical Society, 2015, 137, 4191-4197.	13.7	192
18	Hollow Fiber Adsorbents for CO₂ Removal from Flue Gas. Industrial & Engineering Chemistry Research, 2009, 48, 7314-7324.	3.7	172

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19	Adsorption of Water and Ethanol in MFI-Type Zeolites. Langmuir, 2012, 28, 8664-8673.	3.5	161
20	Investigating the Intrinsic Ethanol/Water Separation Capability of ZIF-8: An Adsorption and Diffusion Study. Journal of Physical Chemistry C, 2013, 117, 7214-7225.	3.1	153
21	Electrochemical doping of poly-(p-phenylene) with application to organic batteries. Journal of the Chemical Society Chemical Communications, 1982, , 361.	2.0	115
22	Intrinsic photoconduction in anthracene single crystals: Electric field dependence of hole and electron quantum yields. Journal of Chemical Physics, 1973, 59, 2269-2272.	3.0	113
23	Life Cycle Energy and Greenhouse Gas Emissions for an Ethanol Production Process Based on Blue-Green Algae. Environmental Science & Technology, 2010, 44, 8670-8677.	10.0	111
24	Effect of Short Chain Branching on the Coil Dimensions of Polyolefins in Dilute Solution. Macromolecules, 2001, 34, 6812-6820.	4.8	107
25	Ethanol and water adsorption in methanol-derived ZIF-71. Chemical Communications, 2011, 47, 8667.	4.1	97
26	Enabling Low-Cost CO₂ Capture via Heat Integration. Industrial & Engineering Chemistry Research, 2010, 49, 7550-7562.	3.7	96
27	Highly conducting charge-transfer complexes of a processible polymer: poly(p-phenylene sulphide). Journal of the Chemical Society Chemical Communications, 1980, , 348.	2.0	86
28	A Study of the Separation Principle in Size Exclusion Chromatography. Macromolecules, 2004, 37, 4304-4312.	4.8	68
29	Butane isomer transport properties of 6FDAâ€“DAM and MFIâ€“6FDAâ€“DAM mixed matrix membranes. Journal of Membrane Science, 2009, 343, 157-163.	8.2	59
30	Functionalization of the Internal Surface of Pure-Silica MFI Zeolite with Aliphatic Alcohols. Journal of Physical Chemistry C, 2008, 112, 3543-3551.	3.1	56
31	Hollow fiber adsorbents for CO2 capture: Kinetic sorption performance. Chemical Engineering Journal, 2011, 171, 801-810.	12.7	56
32	CO2 sorption and desorption performance of thermally cycled hollow fiber sorbents. International Journal of Greenhouse Gas Control, 2012, 10, 285-294.	4.6	47
33	Global Warming and Carbon-Negative Technology: Prospects for a Lower-Cost Route to a Lower-Risk Atmosphere. Energy and Environment, 2009, 20, 973-984.	4.6	34
34	In situ determination of the adsorption characteristics of a zeolite membrane. Journal of Membrane Science, 2004, 230, 91-98.	8.2	26
35	Formation of Defect-Free Latex Films on Porous Fiber Supports. ACS Applied Materials & Interfaces, 2011, 3, 3568-3582.	8.0	26
36	Diffusion of water and ethanol in silicalite crystals synthesized in fluoride media. Microporous and Mesoporous Materials, 2013, 170, 259-265.	4.4	24

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37	Torsion Potential in Polydiacetylene: Accurate Computations on Oligomers Extrapolated to the Polymer Limit. Journal of the American Chemical Society, 2010, 132, 13313-13319.	13.7	23
38	Fluorescence reabsorption in anthracene single crystals: Lifetime variations with emission wavelength and temperature. Chemical Physics, 1974, 4, 402-408.	1.9	17
39	Effect of Crystal Size on Framework Defects and Water Uptake in Fluoride Mediated Silicalite-1. Chemistry of Materials, 2014, 26, 4368-4376.	6.7	16
40	Anthropogenic <scp>CO₂</scp> as a feedstock for the production of algalâ€based biofuels. Biofuels, Bioproducts and Biorefining, 2015, 9, 72-81.	3.7	14
41	Membrane-Mediated Delivery of Carbon Dioxide for Consumption by Photoautotrophs: Eliminating Thermal Regeneration in Carbon Capture. Industrial & Engineering Chemistry Research, 2012, 51, 4673-4681.	3.7	12
42	Life cycle greenhouse gas emissions of different CO2 supply options for an algal biorefinery. Journal of CO2 Utilization, 2020, 40, 101213.	6.8	11
43	Biomass and pigment production for Arthrospira platensis via semiâ€continuous cultivation in photobioreactors: Temperature effects. Biotechnology and Bioengineering, 2020, 117, 3081-3093.	3.3	10
44	Flow induced birefringence of conjugated polymer solutions. Synthetic Metals, 1989, 28, D689-D697.	3.9	6
45	Global evaluation of economics of microalgae-based biofuel supply chain using GIS-based framework. Korean Journal of Chemical Engineering, 2022, 39, 1524-1541.	2.7	6
46	Lifecycle greenhouse gas emissions for an ethanol production process based on genetically modified cyanobacteria: CO 2 sourcing options. Biofuels, Bioproducts and Biorefining, 2020, 14, 1324-1334.	3.7	3