Renaud Denoyel

List of Publications by Year
in descending order

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89 papers	4,544 citations	126708 33 h-index	102304 66 g-index
91 all docs	91 docs citations	91 times ranked	6506 citing authors

#	Article	IF	Citations
1	Single-ion BAB triblock copolymers as highly efficient electrolytes for lithium-metal batteries. Nature Materials, 2013, 12, 452-457.	13.3	1,194
2	Using Pressure to Provoke the Structural Transition of Metalâ€“Organic Frameworks. Angewandte Chemie - International Edition, 2010, 49, 7526-7529.	7.2	200
3	Explanation of the Adsorption of Polar Vapors in the Highly Flexible Metal Organic Framework MIL-53(Cr). Journal of the American Chemical Society, 2010, 132, 9488-9498.	6.6	185
4	Liquid intrusion and alternative methods for the characterization of macroporous materials (IUPAC) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 5	0.9	163
5	p-Xylene-Selective Metalâ€“Organic Frameworks: A Case of Topology-Directed Selectivity. Journal of the American Chemical Society, 2011, 133, 18526-18529.	6.6	159
6	Selective Removal of Nâ€Heterocyclic Aromatic Contaminants from Fuels by Lewis Acidic Metalâ€“Organic Frameworks. Angewandte Chemie - International Edition, 2011, 50, 4210-4214.	7.2	159
7	Structural Transitions in MIL-53 (Cr): View from Outside and Inside. Langmuir, 2011, 27, 4734-4741.	1.6	143
8	Optimization of Block Copolymer Electrolytes for Lithium Metal Batteries. Chemistry of Materials, 2015, 27, 4682-4692.	3.2	125
9	Hydration sequence of swelling clays: Evolutions of specific surface area and hydration energy. Journal of Colloid and Interface Science, 2009, 333, 510-522.	5.0	95
10	Calcination of the MCMâ€41 mesophase: mechanism of surfactant thermal degradation and evolution of the porosity. Journal of Materials Chemistry, 1999, 9, 2843-2849.	6.7	91
11	Single Crystal X-ray Diffraction Studies of Carbon Dioxide and Fuel-Related Gases Adsorbed on the Small Pore Scandium Terephthalate Metal Organic Framework, Sc₂(O₂CC₆H₄CO₂)₃. Langmuir, 2009, 25, 3618-3626.	1.6	91
12	Ozone treatment for the removal of surfactant to form MCM-41 type materials. Chemical Communications, 1998, , 2203-2204.	2.2	82
13	Mechanism of Metal Oxide Nanoparticle Loading in SBA-15 by the Double Solvent Technique. Journal of Physical Chemistry C, 2010, 114, 3507-3515.	1.5	82
14	Cluster-Associated Filling of Water in Hydrophobic Carbon Micropores. Journal of Physical Chemistry B, 2004, 108, 14043-14048.	1.2	78
15	The characterization of macroporous solids: An overview of the methodology. Microporous and Mesoporous Materials, 2012, 154, 2-6.	2.2	76
16	Composite Proton-Conducting Hybrid Polymers: Water Sorption Isotherms and Mechanical Properties of Blends of Sulfonated PEEK and Substituted PPSU. Chemistry of Materials, 2008, 20, 4327-4334.	3.2	72
17	Thermodynamic properties of C-S-H, C-A-S-H and M-S-H phases: Results from direct measurements and predictive modelling. Applied Geochemistry, 2018, 92, 140-156.	1.4	72
18	A calorimetric study of mesoscopic swelling and hydration sequence in solid Na-montmorillonite. Applied Clay Science, 2008, 39, 186-201.	2.6	66

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19	The influence of surface chemistry on activated carbon adsorption of 2-methylisoborneol from aqueous solution. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2001, 179, 271-280.	2.3	61
20	Adsorption of the uremic toxin p-cresol onto hemodialysis membranes and microporous adsorbent zeolite silicalite. Journal of Biotechnology, 2006, 123, 164-173.	1.9	51
21	Pore-Blocking-Controlled Freezing of Water in Cagelike Pores of KIT-5. Journal of Physical Chemistry C, 2007, 111, 9488-9495.	1.5	50
22	Thermodynamical and structural insights of orange II adsorption by MgRAlNO3 layered double hydroxides. Journal of Solid State Chemistry, 2011, 184, 1016-1024.	1.4	49
23	Oxidation Mechanism of Aluminum Nanopowders. Journal of Physical Chemistry C, 2015, 119, 25063-25070.	1.5	48
24	Influence of Molecule Size on Its Transport Properties through a Porous Medium. Analytical Chemistry, 2010, 82, 2668-2679.	3.2	47
25	The Direct Heat Measurement of Mechanical Energy Storage Metalâ€“Organic Frameworks. Angewandte Chemie - International Edition, 2015, 54, 4626-4630.	7.2	47
26	In situ surfactant removal from MCM-type mesostructures by ozone treatment. Journal of Materials Chemistry, 2001, 11, 589-593.	6.7	45
27	Contact Angle Assessment of Hydrophobic Silica Nanoparticles Related to the Mechanisms of Dry Water Formation. Langmuir, 2010, 26, 2333-2338.	1.6	45
28	Formation of mesoporous, zirconium(IV) oxides of controlled surface areas. Journal of Materials Chemistry, 1998, 8, 2147-2152.	6.7	40
29	Characterization of pore structure of a strong anion-exchange membrane adsorbent under different buffer and salt concentration conditions. Journal of Chromatography A, 2009, 1216, 941-947.	1.8	40
30	Characterization of mesoporous silica and its pseudomorphically transformed derivative by gas and liquid adsorption. Microporous and Mesoporous Materials, 2007, 102, 111-121.	2.2	35
31	Synthesis and characterization of a polystyrenic resin functionalized by catechol: Application to retention of metal ions. Reactive and Functional Polymers, 2008, 68, 1362-1370.	2.0	34
32	Using Pressure to Provoke the Structural Transition of Metalâ€“Organic Frameworks. Angewandte Chemie, 2010, 122, 7688-7691.	1.6	34
33	Epoxy-functionalized large-pore SBA-15 and KIT-6 as affinity chromatography supports. Comptes Rendus Chimie, 2010, 13, 199-206.	0.2	34
34	Enthalpic effects in the adsorption of alkylaromatics on the metal-organic frameworks MIL-47 and MIL-53. Microporous and Mesoporous Materials, 2012, 157, 82-88.	2.2	33
35	Microcalorimetry Study of the Adsorption of Asphaltenes and Asphaltene Model Compounds at the Liquidâ€“Solid Surface. Langmuir, 2016, 32, 7294-7305.	1.6	33
36	Functionalized ordered nanoporous polymeric materials: From the synthesis of diblock copolymers to their nanostructuration and their selective degradation. Microporous and Mesoporous Materials, 2011, 140, 34-39.	2.2	32

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37	Inverse Suspension Polymerization as a New Tool for the Synthesis of Ionâ€Imprinted Polymers. Macromolecular Rapid Communications, 2012, 33, 928-932.	2.0	32
38	Adsorption of Barium and Calcium Chloride onto Negatively Charged Î±-Fe2O3 Particles. Journal of Colloid and Interface Science, 2002, 255, 27-35.	5.0	30
39	Mechanism of creatinine adsorption from physiological solutions onto mordenite. Microporous and Mesoporous Materials, 2009, 119, 186-192.	2.2	30
40	Effect of porogen solvent on the properties of nickel ion imprinted polymer materials prepared by inverse suspension polymerization. European Polymer Journal, 2017, 87, 124-135.	2.6	30
41	CEC separation of aromatic compounds and proteins on hexylamineâ€functionalized Nâ€acryloxysuccinimide monoliths. Journal of Separation Science, 2007, 30, 3000-3010.	1.3	28
42	Comparative adsorption of argon and nitrogen for the characterisation of hydrophobized surfaces. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2004, 245, 93-98.	2.3	27
43	Synthesis of a poly(vinylcatechol-co-divinylbenzene) resin and accessibility to catechol units. Polymer, 2010, 51, 2472-2478.	1.8	25
44	An efficient and recyclable hybrid nanocatalyst to promote enantioselective radical cascade rearrangements of enediynes. Chemical Communications, 2011, 47, 5286.	2.2	25
45	Comparing the Basic Phenomena Involved in Three Methods of Pore-size Characterization: Gas Adsorption, Liquid Intrusion and Thermoporometry. Particle and Particle Systems Characterization, 2004, 21, 128-137.	1.2	21
46	Detailed in Situ XRD and Calorimetric Study of the Formation of Silicate/Mixed Surfactant Mesophases under Alkaline Conditions. Influence of Surfactant Chain Length and Synthesis Temperature. Journal of Physical Chemistry B, 2006, 110, 16254-16260.	1.2	20
47	Catechol immobilized on crosslinked polystyrene resins by grafting or copolymerization: Incidence on metal ions adsorption. Reactive and Functional Polymers, 2012, 72, 98-106.	2.0	20
48	Influence of humidity, temperature, and the addition of activated carbon on the preparation of cellulose acetate membranes and their ability to remove arsenic from water. Journal of Applied Polymer Science, 2014, 131, .	1.3	20
49	Novel Functional Mesoporous Materials Obtained from Nanostructured Diblock Copolymers. Macromolecular Symposia, 2010, 287, 127-134.	0.4	19
50	Optimization of the Properties of Macroporous Chromatography Silica Supports through Surface Roughness Control. Chemistry of Materials, 2009, 21, 1884-1892.	3.2	18
51	Noninvasive Experimental Evidence of the Linear Pore Size Dependence of Water Diffusion in Nanoconfinement. Journal of Physical Chemistry Letters, 2016, 7, 393-398.	2.1	18
52	Methodology for determining the thermodynamic properties of smectite hydration. Applied Geochemistry, 2017, 82, 146-163.	1.4	18
53	Spontaneous Microstructure Formation at Water/Paraffin Oil Interfaces. Langmuir, 2017, 33, 14011-14019.	1.6	16
54	Interactions of lysozyme with hydrophilic and hydrophobic polymethacrylate stationary phases in reversed phase chromatography (RPC). Journal of Proteomics, 1994, 29, 283-294.	2.4	15

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55	The use of microcalorimetry to assess the size exclusion properties of carbon molecular sieves. Thermochimica Acta, 2004, 420, 141-144.	1.2	13
56	The extraction of creatinine from a physiological medium by a microporous solid and its quantification by diffuse reflectance UV spectroscopy. Microporous and Mesoporous Materials, 2010, 129, 144-148.	2.2	13
57	Direct electron transfer of bilirubin oxidase at a carbon flow-through electrode. Electrochimica Acta, 2018, 283, 88-96.	2.6	13
58	Synthesis of binderless FAU-X (13X) monoliths with hierarchical porosity. Microporous and Mesoporous Materials, 2019, 281, 57-65.	2.2	13
59	Molecular Simulations of Water and Paracresol in MFI Zeolite - A Monte Carlo Study. Langmuir, 2009, 25, 11598-11607.	1.6	12
60	Adsorption of 2,3-DCDD on FAU and EMT-type zeolites: Influence of the nature and the content of charge compensating cations. Microporous and Mesoporous Materials, 2013, 177, 25-31.	2.2	12
61	Grafting Î³-aminopropyl triethoxysilane onto silica: consequence on polyacrylic acid adsorption. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2002, 197, 213-223.	2.3	11
62	Impact of the solute exclusion on the bed longitudinal diffusion coefficient and particle intra-tortuosity determined by ISEC. Journal of Chromatography A, 2014, 1325, 179-185.	1.8	11
63	Effect of tortuosity on diffusion of polystyrenes through chromatographic columns filled with fully porous and porous â€“shell particles and monoliths. Microporous and Mesoporous Materials, 2020, 293, 109776.	2.2	11
64	Cancrinite synthesis from natural kaolinite by high pressure hydrothermal method: Application to the removal of Cd2+ and Pb2+ from water. Microporous and Mesoporous Materials, 2020, 301, 110209.	2.2	11
65	Porous Texture and Surface Characterization from Liquid-Solid Interactions. , 2008, , 273-300.		10
66	Assessing microporosity by immersion microcalorimetry into liquid nitrogen or liquid argon. Studies in Surface Science and Catalysis, 2002, , 171-176.	1.5	9
67	Calculation of immersion enthalpy data from adsorption isotherms. Journal of Colloid and Interface Science, 2005, 282, 327-334.	5.0	9
68	Do the Differential Enthalpies of Adsorption Vary Between 77 K and 302 K? An Experimental Case Study of Argon and Nitrogen on Two Faujasite Type Zeolites. Adsorption, 2005, 11, 73-78.	1.4	9
69	Surface excess amounts in high-pressure gas adsorption: Issues and benefits. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2016, 496, 3-12.	2.3	9
70	Impact of surface diffusion on transport through porous materials. Journal of Chromatography A, 2022, 1665, 462823.	1.8	9
71	Adsorption into the MFI zeolite of aromatic molecule of biological relevance. Investigations by Monte Carlo simulations. Journal of Molecular Modeling, 2009, 15, 573-579.	0.8	7
72	Simulation of liquidâ€“liquid interfaces in porous media. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2016, 496, 28-38.	2.3	6

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73	The role of thermal analysis and calorimetry in the study of porous or divided materials. Thermochimica Acta, 1989, 148, 183-190.	1.2	5
74	Adsorption of paracresol in silicalite-1 and pure silica faujasite. A comparison study using molecular simulation. Applied Surface Science, 2010, 256, 5470-5474.	3.1	5
75	Novel Routes to Functional (Meso)Porous Crossâ€Linked Polymers Using (Semiâ€)Interpenetrating Polymer Networks as Nanostructured Precursors. Macromolecular Symposia, 2010, 291-292, 168-176.	0.4	5
76	Adsorption of styrene sulfonate from aqueous solutions onto carbon fibers and mesoporous carbon. Microporous and Mesoporous Materials, 2016, 222, 247-255.	2.2	5
77	Influence of the structure of mesoporous adsorbents on transport properties. Microporous and Mesoporous Materials, 2011, 140, 97-102.	2.2	4
78	Impact of wettability on moisture transport at mesoscale in porous materials. Microporous and Mesoporous Materials, 2013, 178, 104-107.	2.2	4
79	Porous silica beads produced by nanofluid emulsion freezing. Microporous and Mesoporous Materials, 2020, 305, 110362.	2.2	4
80	In situ methods for studying adsorbed phases at the solid/liquid interface: microcalorimetry and ellipsometry. Comptes Rendus - Geoscience, 2002, 334, 689-702.	0.4	3
81	Calorimetry by immersion into liquid nitrogen and liquid argon: a better way to determine the internal surface area of micropores. Journal of Colloid and Interface Science, 2004, 277, 383-386.	5.0	3
82	Morphology and reactivity of aluminium nanocrystalline powders. International Journal of Nanotechnology, 2012, 9, 618.	0.1	3
83	Nitrogen Adsorption on Divalent Cation Substituted X-Faujasites: Microcalorimetry and Monte Carlo Simulation. Adsorption, 2005, 11, 343-347.	1.4	2
84	Microstructure Formation in Freezing Nanosuspension Droplets. Journal of Physical Chemistry Letters, 2018, 9, 2714-2719.	2.1	2
85	Influence of texture and microstructure on the reactivity of aluminum powders. Materialia, 2020, 14, 100880.	1.3	2
86	The Use of Nanoporous Materials for Mechanical Energy Dissipation. , 2017, , .		1
87	Contact Interaction of Double-Chained Surfactant Layers on Silica: Bilayer Rupture and Capillary Bridge Formation. Langmuir, 2013, 29, 14473-14481.	1.6	0
88	Characterisation of MOF Materials by Thermomechanical Methods. , 2013, , .		0
89	Effect of the polydispersity on the dispersion of polymers through silicas having different morphologies (fully porous and core-shell particles and monoliths). Journal of Chromatography A, 2021, 1641, 461985.	1.8	0