Domenico Caputo

List of Publications by Year
in descending order

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113	2,914	172386	197736
papers	citations	29 h-index	49 g-index

117	117	117	3643
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Recycled plastic aggregate in mortars composition: Effect on physical and mechanical properties. Materials & Design, 2013, 52, 916-922.	5.1	153
2	Modeling Carbon Dioxide Adsorption on Microporous Substrates: Comparison between Cu-BTC Metalâ"Organic Framework and 13X Zeolitic Molecular Sieve. Journal of Chemical & Engineering Data, 2010, 55, 3655-3661.	1.0	134
3	Some advances in understanding the pozzolanic activity of zeolites: The effect of zeolite structure. Cement and Concrete Composites, 2008, 30, 455-462.	4.6	103
4	CO₂ Adsorption by Functionalized Nanoporous Materials: A Review. Journal of Nanoscience and Nanotechnology, 2014, 14, 1811-1822.	0.9	101
5	Xanthan and Î²-carrageenan based alkaline hydrogels as electrolytes for Al/air batteries. Carbohydrate Polymers, 2017, 157, 122-127.	5.1	86
6	Experiments and data processing of ion exchange equilibria involving Italian natural zeolites: a review. Microporous and Mesoporous Materials, 2007, 105, 222-231.	2.2	83
7	Thermal cycling stability of fly ash based geopolymer mortars. Composites Part B: Engineering, 2017, 129, 11-17.	5.9	82
8	Reuse of mining waste as aggregates in fly ash-based geopolymers. Journal of Cleaner Production, 2019, 220, 65-73.	4.6	81
9	CO₂ Adsorption on Polyethylenimine-Functionalized SBA-15 Mesoporous Silica: Isotherms and Modeling. Journal of Chemical & Engineering Data, 2014, 59, 896-902.	1.0	73
10	Chromium removal from water using LTA zeolites: Effect of pH. Journal of Colloid and Interface Science, 2007, 313, 574-578.	5.0	71
11	Silver-containing mesoporous bioactive glass with improved antibacterial properties. Journal of Materials Science: Materials in Medicine, 2013, 24, 2129-2135.	1.7	71
12	Mechanical and chemical properties of composite materials made of dredged sediments in a fly-ash based geopolymer. Journal of Environmental Management, 2017, 191, 1-7.	3.8	71
13	Mechanical behavior of plaster reinforced with abaca fibers. Construction and Building Materials, 2015, 99, 184-191.	3.2	68
14	Nanoporous Materials as H₂S Adsorbents for Biogas Purification: a Review. Separation and Purification Reviews, 2019, 48, 78-89.	2.8	64
15	Ion exchange selectivity of phillipsite for Cs and Sr as a function of framework composition. Microporous and Mesoporous Materials, 1999, 28, 315-324.	2.2	61
16	Binders alternative to Portland cement and waste management for sustainable constructionâ€"part 1. Journal of Applied Biomaterials and Functional Materials, 2018, 16, 186-202.	0.7	57
17	Evaluation of phillipsite as cation exchanger in lead removal from water. Microporous Materials, 1996, 5, 357-364.	1.6	56
18	Safe trapping of Cs in heat-treated zeolite matrices. Journal of Nuclear Materials, 2004, 324, 183-188.	1.3	55

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19	Synthesis of mesoporous materials for carbon dioxide sequestration. Microporous and Mesoporous Materials, 2005, 81, 139-147.	2.2	53
20	Optimal synthesis of amino-functionalized mesoporous silicas for the adsorption of heavy metal ions. Microporous and Mesoporous Materials, 2016, 236, 250-259.	2.2	49
21	Synergistic effect of vegetable protein and silicon addition on geopolymeric foams properties. Journal of Materials Science, 2015, 50, 2459-2466.	1.7	48
22	Binders alternative to Portland cement and waste management for sustainable construction â€“ Part 2. Journal of Applied Biomaterials and Functional Materials, 2018, 16, 207-221.	0.7	45
23	Natural zeolites for heavy metals removal from aqueous solutions: Modeling of the fixed bed Ba2+/Na+ ion-exchange process using a mixed phillipsite/chabazite-rich tuff. Chemical Engineering Journal, 2013, 219, 37-42.	6.6	44
24	Evaluation of bio-degummed hemp fibers as reinforcement in gypsum plaster. Composites Part B: Engineering, 2018, 138, 149-156.	5.9	44
25	Thermo-mechanical behaviour of hemp fibers-reinforced gypsum plasters. Construction and Building Materials, 2018, 185, 256-263.	3.2	42
26	Î±-Tocopherol release from active polymer films loaded with functionalized SBA-15 mesoporous silica. Microporous and Mesoporous Materials, 2013, 167, 10-15.	2.2	39
27	Modeling carbon dioxide adsorption on polyethylenimine-functionalized TUD-1 mesoporous silica. Journal of Colloid and Interface Science, 2012, 367, 348-354.	5.0	36
28	Evaluation of Mechanical and Leaching Properties of Cement-Based Solidified Materials Encapsulating Cd-Exchanged Natural Zeolites. Environmental Technology (United Kingdom), 1996, 17, 1215-1224.	1.2	33
29	Design of sustainable porous materials based on 3D-structured silica exoskeletons, Diatomite: Chemico-physical and functional properties. Materials and Design, 2018, 145, 196-204.	3.3	33
30	Strategies for the valorization of soil waste by geopolymer production: An overview. Journal of Cleaner Production, 2021, 288, 125646.	4.6	31
31	Fiber-reinforced lime-based mortars: Effect of zeolite addition. Construction and Building Materials, 2015, 77, 455-460.	3.2	30
32	Modeling the performances of a CO2 adsorbent based on polyethylenimine-functionalized macro-/mesoporous silica monoliths. Microporous and Mesoporous Materials, 2015, 215, 1-7.	2.2	29
33	Sr-, Zn- and Cd-exchanged zeolitic materials as water vapor adsorbents for thermal energy storage applications. Applied Thermal Engineering, 2016, 106, 1217-1224.	3.0	29
34	Peculiarities of vanillin release from amino-functionalized mesoporous silica embedded into biodegradable composites. European Polymer Journal, 2017, 89, 88-100.	2.6	29
35	Modeling of water and ethanol adsorption data on a commercial zeolite-rich tuff and prediction of the relevant binary isotherms. Microporous and Mesoporous Materials, 2007, 105, 260-267.	2.2	28
36	Adsorption and diffusion of propane and propylene inÂAg+-impregnated MCM-41. Adsorption, 2008, 14, 241-246.	1.4	28

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37	Hybrid geopolymeric foams with diatomite addition: Effect on chemico-physical properties. Journal of Cellular Plastics, 2017, 53, 525-536.	1.2	27
38	Pozzolanic Activity of Zeolites: The Role of Si/Al Ratio. Materials, 2019, 12, 4231.	1.3	27
39	Mechanically Coherent Zeolite 13X/Chitosan Aerogel Beads for Effective CO₂ Capture. ACS Applied Materials & Interfaces, 2021, 13, 20728-20734.	4.0	27
40	Enhanced visible-light-responsive photocatalytic property of CdS and PbS sensitized ZnO nanocomposite photocatalysts. Materials Science and Engineering B: Solid-State Materials for Advanced Technology, 2012, 177, 570-574.	1.7	25
41	Molecular interactions of CO 2 with the CuBTC metal organic framework: An FTIR study based on two-dimensional correlation spectroscopy. Journal of Molecular Structure, 2018, 1166, 326-333.	1.8	25
42	Process strategy to fabricate a hierarchical porosity gradient in diatomite-based foams by 3D printing. Scientific Reports, 2020, 10, 612.	1.6	25
43	Preparation and characterization of polyethylenimine-modified mesoporous silicas as CO2 sorbents. Studies in Surface Science and Catalysis, 2007, 170, 1938-1943.	1.5	24
44	Ion exchange selectivity of phillipsite for Cs+: a structural investigation using the Rietveld method. Microporous and Mesoporous Materials, 1999, 32, 319-329.	2.2	22
45	Zeolitized tuff in environmental friendly production of cementitious material: Chemical and mechanical characterization. Construction and Building Materials, 2015, 99, 272-278.	3.2	22
46	Iron-activated carbon nanocomposite: synthesis, characterization and application for lead removal from aqueous solution. RSC Advances, 2016, 6, 42845-42853.	1.7	22
47	Zeolite-Rich Composite Materials for Environmental Remediation: Arsenic Removal from Water. Applied Sciences (Switzerland), 2020, 10, 6939.	1.3	22
48	MOF-Based Adsorbents for Atmospheric Emission Control: A Review. Processes, 2020, 8, 613.	1.3	22
49	A preliminary investigation on kinetics of zeolite A crystallisation using optical diagnostics. Materials Chemistry and Physics, 2000, 66, 120-125.	2.0	21
50	Synthesis of amino-functionalized MIL-101(Cr) MOF for hexavalent chromium adsorption from aqueous solutions. Environmental Nanotechnology, Monitoring and Management, 2020, 14, 100300.	1.7	21
51	A chromium-based metal organic framework as a potential high performance adsorbent for anaesthetic vapours. RSC Advances, 2014, 4, 49478-49484.	1.7	20
52	Modeling Hydrogen Sulfide Adsorption on Chromium-Based MIL-101 Metal Organic Framework. Science of Advanced Materials, 2014, 6, 164-170.	0.1	20
53	Entrapping of Cs and Sr in heat-treated zeolite matrices. Journal of Nuclear Materials, 2013, 435, 196-201.	1.3	19
54	Me-ZSM-5 monolith foams for the NH 3 -SCR of NO. Catalysis Today, 2018, 304, 112-118.	2.2	19

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55	Use of a Metal Organic Framework for the Adsorptive Removal of Gaseous HCl: A New Approach for a Challenging Task. ACS Applied Materials & Interfaces, 2018, 10, 14271-14275.	4.0	18
56	Hemp reinforcement in lightweight geopolymers. Journal of Composite Materials, 2018, 52, 2313-2320.	1.2	18
57	Chromium-based MIL-101 metal organic framework as a fully regenerable D4 adsorbent for biogas purification. Renewable Energy, 2019, 138, 230-235.	4.3	18
58	Reinventing rice husk ash: derived NaX zeolite as a high-performing CO2 adsorbent. International Journal of Environmental Science and Technology, 2018, 15, 1543-1550.	1.8	17
59	The Double Selectivity Model for the Description of Ion-Exchange Equilibria in Zeolitesâ€. Industrial & Engineering Chemistry Research, 2003, 42, 1093-1097.	1.8	16
60	Permanent and safe storage of Ba2+ in hardened phillipsite-rich tuff/cement pastes. Applied Clay Science, 2005, 28, 167-173.	2.6	15
61	The Improvement of Durability of Reinforced Concretes for Sustainable Structures: A Review on Different Approaches. Materials, 2022, 15, 2728.	1.3	15
62	Confined mesoporous silica membranes for albumin zero-order release. Microporous and Mesoporous Materials, 2013, 167, 71-75.	2.2	14
63	Chromium removal from water by ion exchange using zeolites and solidification of the resulting sludge in a cement matrix. Studies in Surface Science and Catalysis, 1999, , 723-730.	1.5	13
64	Adsorption Behavior of Halogenated Anesthetic and Water Vapor on Cr-Based MOF (MIL-101) Adsorbent. Part I. Equilibrium and Breakthrough Characterizations. Chemie-Ingenieur-Technik, 2016, 88, 1730-1738.	0.4	13
65	MFI and FAU-Type Zeolites as Trapping Materials for Light Hydrocarbons Emission Control at Low Partial Pressure and High Temperature. Journal of Chemistry, 2015, 2015, 1-11.	0.9	12
66	Zeolite-based monoliths for water softening by ion exchange/precipitation process. Scientific Reports, 2022, 12, 3686.	1.6	12
67	Data processing of cation exchange equilibria in zeolites: a modified approach. Studies in Surface Science and Catalysis, 2005, 155, 129-140.	1.5	11
68	Ion exchange kinetics and thermodynamics of hydrosodalite, a narrow pore zeolite. Journal of Porous Materials, 2014, 21, 643-651.	1.3	11
69	Effect of carbonaceous fillers on adsorption behavior of multifunctional diatomite-based foams for wastewater treatment. Chemosphere, 2021, 281, 130999.	4.2	11
70	Adsorption Behavior of Halogenated Anesthetic and Water Vapor on Cr-Based MOF (MIL-101) Adsorbent. Part II. Multiple-Cycle Breakthrough Tests. Chemie-Ingenieur-Technik, 2016, 88, 1739-1745.	0.4	10
71	Safe trapping of Cs in heat-treated zeolite matrices. Part 2. Studies in Surface Science and Catalysis, 2008, 174, 537-540.	1.5	9
72	Synthesis and characterization of a microporous copper triazolate as a water vapor adsorbent. Microporous and Mesoporous Materials, 2011, 145, 74-79.	2.2	9

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73	Ethylene adsorption onto thermally treated AgA-Zeolite. Applied Surface Science, 2021, 542, 148748.	3.1	8
74	Crushed Bricks: Demolition Waste as a Sustainable Raw Material for Geopolymers. Sustainability, 2021, 13, 7572.	1.6	8
75	LTA Zeolite as Pozzolanic Addition for Hydraulic Mortars: An Effective, Promising Use. Advanced Porous Materials, 2013, 1, 129-135.	0.3	8
76	Zeoliteâ€Based Adsorbers for Reducing Light Hydrocarbon Emissions from Engine Exhaust. Separation Science and Technology, 2005, 39, 1547-1561.	1.3	7
77	Adsorption properties of clinoptilolite-rich tuff from Thrace, NE Greece. Studies in Surface Science and Catalysis, 2001, 140, 121-129.	1.5	6
78	Synthesis and adsorption properties of iron containing BEA and MOR type zeolites. Studies in Surface Science and Catalysis, 2001, 140, 307-314.	1.5	6
79	Ion exchange equilibria in a synthetic merlinoite. Studies in Surface Science and Catalysis, 2004, 154, 1920-1928.	1.5	6
80	Synthesis and Characterization of Activated Carbon Foam from Polymerization of Furfuryl Alcohol Activated by Zinc and Copper Chlorides. Journal of Carbon Research, 2020, 6, 45.	1.4	6
81	Sustainable Management of Autoclaved Aerated Concrete Wastes in Gypsum Composites. Sustainability, 2021, 13, 3961.	1.6	5
82	Green Chemical Routes for the Synthesis of Lead-Free Ferroelectric Material 0.5Ba(Zr0.2Ti0.8)O3â€“0.5(Ba0.7Ca0.3)TiO3. Advanced Science Letters, 2017, 23, 6015-6019.	0.2	5
83	Hydrocarbon adsorbers for reducing cold start emissions. , 0, , .		4
84	Modeling of breakthrough curves in fixedâ€“bed zeolite columns. Studies in Surface Science and Catalysis, 2001, 140, 369-376.	1.5	4
85	Preparation and Photocatalysis of Schlumbergera bridgesii-Like CdS Modified One-Dimensional TiO2 Nanowires on Zeolite. Journal of Materials Engineering and Performance, 2015, 24, 700-708.	1.2	4
86	Mineralogical and Technological Characterization of Zeolites from Basin and Range as Pozzolanic Addition of Cement. Materials, 2022, 15, 2684.	1.3	4
87	Reduction of hydrocarbon emission from engine exhaust using zeolitic adsorbers. Studies in Surface Science and Catalysis, 2004, , 2034-2040.	1.5	3
88	Thermo-elastic behavior and P/T phase stability of TlAlSiO4 (ABW). Microporous and Mesoporous Materials, 2014, 197, 262-267.	2.2	3
89	Physical and mechanical characterization of sun-dried bricks. A case history: the galeb of Kebili. Materials and Structures/Materiaux Et Constructions, 2016, 49, 159-165.	1.3	3
90	The role of materials and products characterization in the additive manufacturing industry. , 2017, , .		3

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91	Optimization of the production process of BZTâ€“BCT solâ€“gel thin films obtained from a highly stable and green precursor solution. Materials and Manufacturing Processes, 2021, 36, 1642-1649.	2.7	3
92	Modeling the Adsorption of CO₂/N₂ Mixtures on Siliceous Nanoporous Materials. Science of Advanced Materials, 2015, 7, 258-263.	0.1	3
93	Abatement of automotive cold start hydrocarbon emissions. , 2001, , .		2
94	A thermodynamic model of chabazite selectivity for Pb2+. Studies in Surface Science and Catalysis, 2005, 155, 339-346.	1.5	2
95	Organic-inorganic hybrid foams with diatomite addition: Effect on functional properties. AIP Conference Proceedings, 2016, , .	0.3	2
96	An insight into clustering of halogenated anesthetics molecules in metal-organic frameworks: Evidence of adsorbate self-association in micropores. Journal of Colloid and Interface Science, 2019, 554, 463-467.	5.0	2
97	Fixed-bed ion-exchange process performance of Pb2+ removal from a simulated ceramic wastewater by Neapolitan yellow tuff. Studies in Surface Science and Catalysis, 2001, 140, 111-119.	1.5	1
98	0.5(BaZr0.2Ti0.8O3)-0.5(Ba0.7Ca0.3O3) thin films deriving from green sol-gel routes. , 2019, , .		1
99	Dielectric Properties of Monoclinic (Ba, Sr)-Celsian Obtained by Thermal Treatment of (Ba,) Tj ETQq1 1 0.784314 rgBT /Overlock 10 Tf 5	0.2	1
100	Amino-Functionalized, Chromium-Based Metal Organic Framework as a Potential High Performance Adsorbent for Hydrogen Chloride. Advanced Science Letters, 2017, 23, 6010-6011.	0.2	1
101	Composites for Bone Tissue Engineering Based on Antibacterial Mesoporous Bioactive Glassy Oxides. Advanced Science Letters, 2017, 23, 6023-6025.	0.2	1
102	Aminofunctionalized silica monolith for Pb2+ removal: synthesis and adsorption experiments. , 0, 105, 287-297.		1
103	Probing the use of Ag-modified SBA-15 as ethylene scavenger. Journal of Sol-Gel Science and Technology, 2021, 100, 352.	1.1	1
104	Zeolitised Materials of the Mediterranean Area as Adsorbents for Environmental Protection. , 1999, , 225-236.		1
105	Suitability and Sustainability of Anti-Graffiti Treatments on Natural Stone Materials. Sustainability, 2022, 14, 575.	1.6	1
106	Diffusion and adsorption of hydrocarbons from automotive engine exhaust in zeolitic adsorbents. Studies in Surface Science and Catalysis, 2002, , 1611-1618.	1.5	0
107	Kinetics of the Ba2+/Na+ exchange on a mixed phillipsite-chabazite-rich tuff. Studies in Surface Science and Catalysis, 2005, 155, 451-459.	1.5	0
108	Solidification of Cdâ€“bearing zeolitic tuff by reaction with lime. Journal of Environmental Science and Health - Part A Toxic/Hazardous Substances and Environmental Engineering, 2012, 47, 228-236.	0.9	0

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109	Cellular morphology of organic-inorganic hybrid foams based on alkali alumino-silicate matrix. , 2014, , .		0
110	Mesoporous silica as carrier of antioxidant for food packaging materials. , 2014, , .		0
111	Selected Peer-Reviewed Articles from the VI Workshop on Oxide-Based Materials â€œPerspectives in Material Science and Technological Applicationsâ€•(OXIDE 2016), Naples, Italy, 21â€“24 September 2016. Advanced Science Letters, 2017, 23, 5819-5820.	0.2	0
112	Assessing lead-free barium zirconate titanate-barium calcium titanate thin films ferroelectric properties in planar configuration. , 2021, , .		0
113	Adsorption and Diffusion of Carbon Dioxide in Polyethylenimine-Modified SBA-15 Silicas. , 0, , 213-220.		0