Robert Carleer

List of Publications by Year
in descending order

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Version: 2024-02-01

124	4,048	109321	138484
papers	citations	35 h-index	58 g-index

125	125	125	5725
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Ectomycorrhizal fungi decompose soil organic matter using oxidative mechanisms adapted from saprotrophic ancestors. New Phytologist, 2016, 209, 1705-1719.	7.3	264
2	House dust as possible route of environmental exposure to cadmium and lead in the adult general population. Environmental Research, 2007, 103, 30-37.	7.5	185
3	Bioaugmentation with Engineered Endophytic Bacteria Improves Contaminant Fate in Phytoremediation. Environmental Science & Technology, 2009, 43, 9413-9418.	10.0	148
4	Endophytic bacteria improve phytoremediation of Ni and TCE co-contamination. Environmental Pollution, 2010, 158, 2422-2427.	7.5	129
5	Recent Updates on the Barrier Properties of Ethylene Vinyl Alcohol Copolymer (EVOH): A Review. Polymer Reviews, 2018, 58, 209-246.	10.9	125
6	Short Rotation Coppice Culture of Willows and Poplars as Energy Crops on Metal Contaminated Agricultural Soils. International Journal of Phytoremediation, 2011, 13, 194-207.	3.1	113
7	Potential of the TCE-degrading endophyte Pseudomonas putida W619-TCE to improve plant growth and reduce TCE phytotoxicity and evapotranspiration in poplar cuttings. Environmental Pollution, 2010, 158, 2915-2919.	7.5	112
8	Differential response of Arabidopsis leaves and roots to cadmium: Glutathione-related chelating capacity vs antioxidant capacity. Plant Physiology and Biochemistry, 2014, 83, 1-9.	5.8	110
9	Cd-tolerant Suillus luteus: A fungal insurance for pines exposed to Cd. Environmental Pollution, 2009, 157, 1581-1588.	7.5	103
10	Polymers for colon specific drug delivery. Journal of Controlled Release, 1996, 39, 327-338.	9.9	89
11	Techno-economic assessment of fast pyrolysis for the valorization of short rotation coppice cultivated for phytoextraction. Journal of Cleaner Production, 2015, 88, 336-344.	9.3	85
12	Bacteria associated with oak and ash on a TCE-contaminated site: characterization of isolates with potential to avoid evapotranspiration of TCE. Environmental Science and Pollution Research, 2009, 16, 830-843.	5.3	84
13	In-line NIR spectroscopy for the understanding of polymerâ€“drug interaction during pharmaceutical hot-melt extrusion. European Journal of Pharmaceutics and Biopharmaceutics, 2012, 81, 230-237.	4.3	81
14	Adsorption and photocatalytic removal of Ibuprofen by activated carbon impregnated with TiO2 by UVâ€“Vis monitoring. Chemosphere, 2019, 217, 724-731.	8.2	81
15	Adsorption of Ni(II) on spent coffee and coffee husk based activated carbon. Journal of Environmental Chemical Engineering, 2018, 6, 1161-1170.	6.7	78
16	Evaluation of flash and slow pyrolysis applied on heavy metal contaminated Sorghum bicolor shoots resulting from phytoremediation. Biomass and Bioenergy, 2014, 63, 268-279.	5.7	77
17	Amendment-Induced Immobilization of Lead in a Lead-Spiked Soil: Evidence from Phytotoxicity Studies. Water, Air, and Soil Pollution, 2002, 140, 261-277.	2.4	76
18	Formulation of itraconazole nanococrystals and evaluation of their bioavailability in dogs. European Journal of Pharmaceutics and Biopharmaceutics, 2014, 87, 107-113.	4.3	63

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19	Development and characterization of mucoadhesive chitosan films for ophthalmic delivery of cyclosporine A. International Journal of Pharmaceutics, 2014, 472, 10-19.	5.2	62
20	Exposure of Arabidopsis thaliana to excess Zn reveals a Zn-specific oxidative stress signature. Environmental and Experimental Botany, 2012, 84, 61-71.	4.2	58
21	Potential for plant growth promotion by a consortium of stressâ€tolerant 2,4â€dinitrotoluneâ€degrading bacteria: isolation and characterization of a military soil. Microbial Biotechnology, 2014, 7, 294-306.	4.2	58
22	Phytoremediation of Metal Contaminated Soil Using Willow: Exploiting Plant-Associated Bacteria to Improve Biomass Production and Metal Uptake. International Journal of Phytoremediation, 2015, 17, 1123-1136.	3.1	55
23	Cadmium Accumulation and Tolerance of TwoSalixGenotypes Hydroponically Grown in Presence of Cadmium. Journal of Plant Nutrition, 2005, 28, 2159-2177.	1.9	54
24	Exploring the rhizospheric and endophytic bacterial communities of Acer pseudoplatanus growing on a TNT-contaminated soil: towards the development of a rhizocompetent TNT-detoxifying plant growth promoting consortium. Plant and Soil, 2014, 385, 15-36.	3.7	54
25	Potential of willow and its genetically engineered associated bacteria to remediate mixed Cd and toluene contamination. Journal of Soils and Sediments, 2013, 13, 176-188.	3.0	52
26	Activated carbon from pyrolysis of brewerâ€™s spent grain: Production and adsorption properties. Waste Management and Research, 2014, 32, 634-645.	3.9	52
27	Endophytes and Their Potential to Deal with Co-Contamination of Organic Contaminants (Toluene) and Toxic Metals (Nickel) During Phytoremediation. International Journal of Phytoremediation, 2011, 13, 244-255.	3.1	48
28	The Potential of the Ni-Resistant TCE-DegradingPseudomonas putidaW619-TCE to Reduce Phytotoxicity and Improve Phytoremediation Efficiency of Poplar Cuttings on A Ni-TCE Co-Contamination. International Journal of Phytoremediation, 2015, 17, 40-48.	3.1	48
29	Adsorption of atrazine on hemp stem-based activated carbons with different surface chemistry. Adsorption, 2015, 21, 489-498.	3.0	42
30	Poly(3-hydroxybutyrate-co-3-hydroxyhexanoate)/Organomodified Montmorillonite Nanocomposites for Potential Food Packaging Applications. Journal of Polymers and the Environment, 2016, 24, 104-118.	5.0	40
31	Nafion-Modified MoO_x as Effective Room-Temperature Hole Injection Layer for Stable, High-Performance Inverted Organic Solar Cells. ACS Applied Materials & Interfaces, 2015, 7, 3581-3589.	8.0	38
32	Valorisation of heavy metals enriched tobacco biomass through slow pyrolysis and steam activation. Journal of Chemical Technology and Biotechnology, 2016, 91, 1585-1595.	3.2	38
33	Organic and inorganic sulphur compounds releases from high-pyrite coal pyrolysis in H 2 , N 2 and CO 2 : Test case Chinese LZ coal. Fuel, 2017, 202, 494-502.	6.4	38
34	Quantitative carbon-13 solid-state n.m.r. and FTâ€“Raman spectroscopy in novolac resins. Polymer, 1998, 39, 5293-5300.	3.8	37
35	Zinc export results in adaptive zinc tolerance in the ectomycorrhizal basidiomycete Suillus bovinus. Metallomics, 2013, 5, 1225.	2.4	37
36	Effect of aromatics on the adsorption of thiophenic sulfur compounds from model diesel fuel by activated carbon cloth. Fuel Processing Technology, 2014, 119, 278-285.	7.2	37

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37	URANIUM INDUCED EFFECTS ON DEVELOPMENT AND MINERAL NUTRITION OFARABIDOPSIS THALIANA. Journal of Plant Nutrition, 2011, 34, 1940-1956.	1.9	36
38	Evaluation of the Thickness and Oxygen Transmission Rate before and after Thermoforming Mono- and Multi-layer Sheets into Trays with Variable Depth. Polymers, 2014, 6, 3019-3043.	4.5	35
39	Use of Magnetic Resonance Imaging To Study Transport of Methanol in Poly(methyl methacrylate) at Variable Temperature. Macromolecules, 1996, 29, 5671-5677.	4.8	34
40	Biodegradation of polycyclic aromatic hydrocarbons by native Ganoderma sp. strains: identification of metabolites and proposed degradation pathways. Applied Microbiology and Biotechnology, 2019, 103, 7203-7215.	3.6	33
41	Element profiles and growth in Zn-sensitive and Zn-resistant Suilloid fungi. Mycorrhiza, 2005, 15, 628-634.	2.8	32
42	Gas Permeability Properties of Poly(3-hydroxybutyrate-co-3-hydroxyhexanoate). Journal of Polymers and the Environment, 2014, 22, 501-507.	5.0	32
43	Tailoring of porous texture of hemp stem-based activated carbon produced by phosphoric acid activation in steam atmosphere. Journal of Porous Materials, 2015, 22, 283-289.	2.6	32
44	An investigation into the electronic structure of poly(isothianaphthene). Synthetic Metals, 1992, 51, 219-228.	3.9	31
45	Novel cross-linked polystyrenes with large space network as tailor-made catalyst supports for sustainable media. European Polymer Journal, 2015, 73, 391-401.	5.4	31
46	Experimental studies on a two-step fast pyrolysis-catalytic hydrotreatment process for hydrocarbons from microalgae (Nannochloropsis gaditana and Scenedesmus almeriensis). Fuel Processing Technology, 2020, 206, 106466.	7.2	31
47	The association between urinary kidney injury molecule 1 and urinary cadmium in elderly during long-term, low-dose cadmium exposure: a pilot study. Environmental Health, 2011, 10, 77.	4.0	29
48	Angular dependence of the vicinal interproton spin-spin coupling in silacyclohexanes. The conformational energy term of the methyl group in 1-methyl-1-silacyclohexane. Magnetic Resonance in Chemistry, 1979, 12, 673-678.	0.7	28
49	Incorporating Cs and Sr into blast furnace slag inorganic polymers and their effect on matrix properties. Journal of Nuclear Materials, 2018, 503, 1-12.	2.7	26
50	On the quinoid structure of poly(isothianaphthene): A vibrational spectroscopic study. Advanced Materials, 1995, 7, 1027-1030.	21.0	25
51	Synthesis and physical performance of indole and benzimidazole cyanine dyes. Journal of Materials Chemistry, 1996, 6, 559.	6.7	25
52	Description of the nanostructured morphology of [6,6]â€phenylâ€C₆₁â€butyric acid methyl ester (PCBM) by XRD, DSC and solidâ€state NMR. Magnetic Resonance in Chemistry, 2011, 49, 242-247.	1.9	25
53	Study of the pyrolysis of sludge and sludge/disposal filter cake mix for the production of value added products. Bioresource Technology, 2013, 134, 1-9.	9.6	25
54	Characterisation of volatile organic sulphur compounds release during coal pyrolysis in inert, hydrogen and CO2 atmosphere. Fuel, 2016, 184, 304-313.	6.4	24

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55	Body surface areaâ€based vs concentrationâ€based perioperative intraperitoneal chemotherapy after optimal cytoreductive surgery in colorectal peritoneal surface malignancy treatment: COBOX trial. Journal of Surgical Oncology, 2019, 119, 999-1010.	1.7	23
56	Evaluation of cyclonic ash, commercial Na-silicates, lime and phosphoric acid for metal immobilisation purposes in contaminated soils in Flanders (Belgium). Environmental Pollution, 2006, 144, 32-39.	7.5	22
57	In vivo Toxicity Assessment of Silver Nanoparticles in Homeostatic versus Regenerating Planarians. Nanotoxicology, 2019, 13, 476-491.	3.0	21
58	Synthesis, characterization and catalytic activity of novel large network polystyrene-immobilized organic bases. RSC Advances, 2015, 5, 107200-107208.	3.6	20
59	Sulphur functionality study of steam pyrolyzed â€œMequinenzaâ€•lignite using reductive pyrolysis technique coupled with MS and GC/MS detection systems. Fuel Processing Technology, 2005, 86, 523-534.	7.2	19
60	Ectomycorrhizal Fungal Protein Degradation Ability Predicted by Soil Organic Nitrogen Availability. Applied and Environmental Microbiology, 2016, 82, 1391-1400.	3.1	19
61	Thermal extraction coupled with gas chromatographyâ€“mass spectrometry as a tool for analysing dioxin surrogates and precursors in fly ash. Journal of Chromatography A, 2008, 1210, 212-221.	3.7	18
62	A hybridization approach to efficient TiO2 photodegradation of aqueous benzalkonium chloride. Journal of Hazardous Materials, 2015, 293, 122-130.	12.4	17
63	Reductive pyrolysis of Miocene-aged lignite humic acids, Bulgaria. Fuel, 2016, 165, 324-330.	6.4	17
64	Body surface area-based versus concentration-based intraperitoneal perioperative chemotherapy in a rat model of colorectal peritoneal surface malignancy: pharmacologic guidance towards standardization. Oncotarget, 2019, 10, 1407-1424.	1.8	17
65	1H NMR study of some substituted acyclic silaethanes, 2-silapropanes and 2-methyl-2-silapropanes and their rotameric populations around the Sï£¿C bond. Magnetic Resonance in Chemistry, 1980, 13, 253-258.	0.7	16
66	Rapeseed and Raspberry Seed Cakes as Inexpensive Raw Materials in the Production of Activated Carbon by Physical Activation: Effect of Activation Conditions on Textural and Phenol Adsorption Characteristics. Materials, 2016, 9, 565.	2.9	16
67	Revealing the influence of the solvent in combination with temperature, concentration and pH on the modification of TiO2 with 3PA. Materials Chemistry and Physics, 2016, 184, 324-334.	4.0	16
68	Selective Desulfurization of Model Diesel Fuel by Carbon Nanoparticles as Adsorbent. Industrial & Engineering Chemistry Research, 2012, 51, 14419-14427.	3.7	15
69	Physicochemical characterizations of functional hybrid liposomal nanocarriers formed using photo-sensitive lipids. Scientific Reports, 2017, 7, 46257.	3.3	15
70	Biochar from raw and spent common ivy: Impact of preprocessing and pyrolysis temperature on biochar properties. Journal of Analytical and Applied Pyrolysis, 2021, 159, 105294.	5.5	15
71	Pterosaur melanosomes support signalling functions for early feathers. Nature, 2022, 604, 684-688.	27.8	15
72	Structural modifications of polymethacrylates: Impact on thermal behavior and release characteristics of glassy solid solutions. European Journal of Pharmaceutics and Biopharmaceutics, 2013, 85, 1206-1214.	4.3	14

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73	Effect of ultrafine talc on crystallization and endâ€use properties of poly(3â€hydroxybutyrateâ€coâ€3â€hydroxyhexanoate). Journal of Applied Polymer Science, 2016, 133, .	2.6	14
74	A validated inductively coupled plasma mass spectrometry (ICP-MS) method for the quantification of total platinum content in plasma, plasma ultrafiltrate, urine and peritoneal fluid. Journal of Pharmaceutical and Biomedical Analysis, 2018, 152, 39-46.	2.8	14
75	Adsorption of Cibacron Yellow F-4G dye onto activated carbons obtained from peanut hull and rice husk: kinetics and equilibrium studies. Biomass Conversion and Biorefinery, 2022, 12, 323-339.	4.6	14
76	Structure of rhodanine cyanine dyes, spectroscopy and performance in photographic emulsions. Journal of Materials Chemistry, 1996, 6, 1325.	6.7	13
77	Reductive pyrolysis of Miocene-aged lignite lithotypes using MS and GC/MS detection systems for analysis of organic sulphur groups. Fuel, 2005, 84, 71-79.	6.4	13
78	The Sycamore Maple Bacterial Culture Collection From a TNT Polluted Site Shows Novel Plant-Growth Promoting and Explosives Degrading Bacteria. Frontiers in Plant Science, 2018, 9, 1134.	3.6	13
79	A novel X-ray radiography approach for the characterization of granular activated carbons used in the rum production. Journal of Analytical Science and Technology, 2018, 9, .	2.1	13
80	Thermal decomposition synthesis of Al-doped ZnO nanoparticles: an in-depth study. RSC Advances, 2013, 3, 23745.	3.6	12
81	Kinetic and adsorption study of Pb (II) toward different treated activated carbons derived from olive cake wastes. Desalination and Water Treatment, 2016, 57, 8561-8574.	1.0	12
82	A detailed investigation of the microwave assisted phenylphosphonic acid modification of P25 TiO2. Advanced Powder Technology, 2017, 28, 236-243.	4.1	12
83	Alkali-activated materials for radionuclide immobilisation and the effect of precursor composition on Cs/Sr retention. Journal of Nuclear Materials, 2018, 510, 575-584.	2.7	12
84	Fenton-Mediated Biodegradation of Chlorendic Acid â€“ A Highly Chlorinated Organic Pollutant â€“ By Fungi Isolated From a Polluted Site. Frontiers in Microbiology, 2019, 10, 1892.	3.5	12
85	Characterization of activated carbons derived from short rotation hardwood pyrolysis char. Journal of Analytical and Applied Pyrolysis, 2013, 101, 199-208.	5.5	10
86	PYQUAN: A rapid workflow around the AMDIS deconvolution software for high throughput analysis of pyrolysis GC/MS data. Journal of Analytical and Applied Pyrolysis, 2016, 118, 335-342.	5.5	10
87	Links Between Heathland Fungal Biomass Mineralization, Melanization, and Hydrophobicity. Microbial Ecology, 2018, 76, 762-770.	2.8	10
88	Combining Monte Carlo simulations and experimental design for incorporating risk and uncertainty in investment decisions for cleantech: a fast pyrolysis case study. Clean Technologies and Environmental Policy, 2018, 20, 1195-1206.	4.1	10
89	Thermogravimetric desorption and de novo tests I: Method development and validation. Chemosphere, 2008, 73, 113-119.	8.2	9
90	In situ monitoring the thermal degradation of PCPDTBT low band gap polymers with varying alkyl side-chain patterns. Journal of Polymer Science Part A, 2013, 51, 4912-4922.	2.3	9

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91	Thermal Extraction of Dioxin Surrogates and Precursors from Filter Dust: Effects of Temperature, Time, and Matrix. Environmental Engineering Science, 2010, 27, 657-668.	1.6	8
92	A novel acoustic approach for the characterization of granular activated carbons used in the rum production. Ultrasonics, 2016, 70, 53-63.	3.9	8
93	Solid-state NMR relaxometry study of phenolic resins. Polymer International, 2003, 52, 1647-1652.	3.1	7
94	Characterization of organic components in leachables from Bulgarian lignites by spectroscopy, chromatography and reductive pyrolysis. International Journal of Coal Geology, 2017, 183, 100-109.	5.0	7
95	Comparative Study between Acoustic Emission Analysis and Immersion Bubble-Metric Technique, TGA and TD-GC/MS in View of the Characterization of Granular Activated Carbons Used in Rum Production. Beverages, 2017, 3, 12.	2.8	7
96	X-ray absorption as an alternative method to determine the exhausting degree of activated carbon layers in water treatment system for medical services. Talanta, 2019, 205, 120058.	5.5	7
97	A Colorimetric Method for the Determination of the Exhaustion Level of Granular Activated Carbons Used in Rum Production. Beverages, 2016, 2, 24.	2.8	6
98	Determination of the nitrogen gas transmission rate (N2GTR) of ethylene vinyl alcohol copolymer, using a newly developed permeation measurement system. Polymer Testing, 2021, 93, 106979.	4.8	6
99	Automation of Potentiometric Measurements: Determination of Water-Extractable Sodium in Bread Using a Sodium Ion Selective Electrode with Minimum Sample Preparation. Journal of AOAC INTERNATIONAL, 1993, 76, 1138-1142.	1.5	5
100	Fully quantitative description of hybrid TiO 2 nanoparticles by means of solid state 31 P NMR. Solid State Nuclear Magnetic Resonance, 2016, 78, 50-55.	2.3	5
101	Ethylene Vinyl Alcohol Copolymer (EVOH) as a Functional Barrier against Surrogate Components Migrating from Paperboard. Journal of Chemistry, 2019, 2019, 1-7.	1.9	5
102	Fe-TiO2/AC and Co-TiO2/AC Composites: Novel Photocatalysts Prepared from Waste Streams for the Efficient Removal and Photocatalytic Degradation of Cibacron Yellow F-4G Dye. Catalysts, 2021, 11, 1137.	3.5	5
103	Photoresist Characterization and Wet Strip after Low-k Dry Etch. Solid State Phenomena, 2007, 134, 325-328.	0.3	4
104	A statistical data-processing methodology of Pyâ€“GC/MS data for the simulation of flash co-pyrolysis reactor experiments. Chemometrics and Intelligent Laboratory Systems, 2012, 110, 123-128.	3.5	4
105	Characterization of the exhaustion profile of activated carbon in industrial rum â€œfiltersâ€• based on TGA, TD-GC/MS, colorimetry and NMR relaxometry. Materials Today Communications, 2017, 11, 1-10.	1.9	4
106	Hydration and Confinement Effects on Horse Heart Myoglobin Adsorption in Mesoporous TiO2. Journal of Physical Chemistry C, 2018, 122, 23393-23404.	3.1	4
107	Chemical preservation of tail feathers fromAnchiornis huxleyi, a theropod dinosaur from the Tiaojishan Formation (Upper Jurassic, China). Palaeontology, 2020, 63, 841-863.	2.2	4
108	Improvement of a new acoustic emission analysis technique to determine the activated carbon saturation level: A comparative study. Journal of Environmental Chemical Engineering, 2020, 8, 103794.	6.7	4

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109	Mathematical Tool Based on Breakthrough Curves to Evaluate the Economic Advantages of Chemical Regeneration of Activated Carbon in Power Plants: A Comparative Study. Applied Sciences (Switzerland), 2021, 11, 11786.	2.5	4
110	Effects of Preliminary Thermal Extraction on De Novo Synthesis. Environmental Engineering Science, 2010, 27, 669-678.	1.6	3
111	Activated Carbon by Co-pyrolysis and Steam Activation from Particle Board and Melamine Formaldehyde Resin: Production, Adsorption Properties and Techno Economic Evaluation. Journal of Sustainable Development of Energy, Water and Environment Systems, 2013, 1, 41-57.	1.9	3
112	Surface Chemistry of Oil-Filled Organic Nanoparticle Coated Papers Analyzed Using Micro-Raman Mapping. Applied Spectroscopy, 2019, 73, 000370281880486.	2.2	3
113	Monitoring the Chloride Concentration in International Scheldt River Basin District Water Using a Low-Cost Multifunction Data Acquisition Board. Water (Switzerland), 2018, 10, 1025.	2.7	3
114	Boltzmann-Based Empirical Model to Calculate Volume Loss during Spirit Ageing. Beverages, 2019, 5, 60.	2.8	3
115	A convolutional neural networks approach using X-Ray absorption images for studying granular activated carbon. SN Applied Sciences, 2020, 2, 1.	2.9	3
116	Efficiency evaluation of thermally and chemically regenerated activated carbons used in a water cleaning system by acoustic emission analysis. Journal of Porous Materials, 2021, 28, 451-469.	2.6	3
117	Methods for Studying the de novo Formation of Dioxins at a Laboratory Scale. , 2007, , 738-747.		3
118	Vibrational and structural evidence of phase transitions in some amides. Thermochimica Acta, 2003, 402, 81-90.	2.7	2
119	X-ray Absorption (XRA): A New Technique for the Characterization of Granular Activated Carbons. Materials, 2021, 14, 91.	2.9	2
120	Acoustic energy isotherms: An emergent approach for textural characterization of activated carbons. Microporous and Mesoporous Materials, 2020, 298, 110045.	4.4	1
121	Monitoring Variations in Thermal Curing of Nanoparticle Coatings through Confocal Raman Microscopy and Principal Component Analysis. Physica Status Solidi (A) Applications and Materials Science, 2020, 217, 1900651.	1.8	1
122	Infrared thermography: A new approach for the characterization and management of activated carbons applied in water treatment. Chemical Engineering Science, 2021, 246, 116881.	3.8	1
123	Evaluation of activation parameters of activated carbon from coffee and cocoa seed husk rests: carbon yields and Ni(II) adsorption. , 0, 104, 175-188.		1
124	Hybrid porous titania phosphonate networks with different bridging functionalities: Synthesis, characterization, and evaluation as efficient solvent separation materials. Microporous and Mesoporous Materials, 2022, , 112080.	4.4	0