Karen Leus

List of Publications by Year
in descending order

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92 papers	5,026 citations	87723 38 h-index	95083 68 g-index
98 all docs	98 docs citations	98 times ranked	6652 citing authors

#	Article	IF	Citations
1	Mixed-metal metalâ€“organic frameworks. Chemical Society Reviews, 2019, 48, 2535-2565.	18.7	474
2	Technologies for Arsenic Removal from Water: Current Status and Future Perspectives. International Journal of Environmental Research and Public Health, 2016, 13, 62.	1.2	320
3	Systematic study of the chemical and hydrothermal stability of selected â€œstableâ€•Metal Organic Frameworks. Microporous and Mesoporous Materials, 2016, 226, 110-116.	2.2	277
4	Strongly Reducing (Diarylamino)benzene-Based Covalent Organic Framework for Metal-Free Visible Light Photocatalytic H₂O₂ Generation. Journal of the American Chemical Society, 2020, 142, 20107-20116.	6.6	239
5	Synthesis, Crystal Structures, and Luminescence Properties of Carboxylate Based Rare-Earth Coordination Polymers. Inorganic Chemistry, 2012, 51, 11623-11634.	1.9	177
6	Engineering a Highly Defective Stable UiO-66 with Tunable Lewis- BrÃ¸nsted Acidity: The Role of the Hemilabile Linker. Journal of the American Chemical Society, 2020, 142, 3174-3183.	6.6	156
7	Understanding Intrinsic Light Absorption Properties of UiO-66 Frameworks: A Combined Theoretical and Experimental Study. Inorganic Chemistry, 2015, 54, 10701-10710.	1.9	155
8	Covalent triazine frameworks â€“ a sustainable perspective. Green Chemistry, 2020, 22, 1038-1071.	4.6	138
9	The remarkable catalytic activity of the saturated metal organic framework V-MIL-47 in the cyclohexene oxidation. Chemical Communications, 2010, 46, 5085.	2.2	109
10	A fluorine-containing hydrophobic covalent triazine framework with excellent selective CO₂ capture performance. Journal of Materials Chemistry A, 2018, 6, 6370-6375.	5.2	105
11	The coordinatively saturated vanadium MIL-47 as a low leaching heterogeneous catalyst in the oxidation of cyclohexene. Journal of Catalysis, 2012, 285, 196-207.	3.1	100
12	Biocompatible Zr-based nanoscale MOFs coated with modified poly(Îµ-caprolactone) as anticancer drug carriers. International Journal of Pharmaceutics, 2016, 509, 208-218.	2.6	96
13	Triggering White-Light Emission in a 2D Imine Covalent Organic Framework Through Lanthanide Augmentation. ACS Applied Materials & Interfaces, 2019, 11, 27343-27352.	4.0	90
14	A Visibleâ€Lightâ€Harvesting Covalent Organic Framework Bearing Single Nickel Sites as a Highly Efficient Sulfurâ€“Carbon Crossâ€Coupling Dual Catalyst. Angewandte Chemie - International Edition, 2021, 60, 10820-10827.	7.2	90
15	Generating Catalytic Sites in UiO-66 through Defect Engineering. ACS Applied Materials & Interfaces, 2021, 13, 60715-60735.	4.0	86
16	Metal-Organic Frameworks as Selective or Chiral Oxidation Catalysts. Catalysis Reviews - Science and Engineering, 2014, 56, 1-56.	5.7	85
17	Removal of arsenic and mercury species from water by covalent triazine framework encapsulated Î³-Fe2O3 nanoparticles. Journal of Hazardous Materials, 2018, 353, 312-319.	6.5	83
18	New Functionalized Metalâ€“Organic Frameworks MIL-47-X (X = â¯Cl, â¯Br, â¯CH₃,) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 Adsorption Properties. Journal of Physical Chemistry C, 2013, 117, 22784-22796.	1.5	79

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19	Understanding the Charge Storage Mechanism to Achieve High Capacity and Fast Ion Storage in Sodiumâ€ion Capacitor Anodes by Using Electrospun Nitrogenâ€Doped Carbon Fibers. Advanced Functional Materials, 2019, 29, 1902858.	7.8	79
20	Acetylacetone Covalent Triazine Framework: An Efficient Carbon Capture and Storage Material and a Highly Stable Heterogeneous Catalyst. Chemistry of Materials, 2018, 30, 4102-4111.	3.2	78
21	Progress in hydrometallurgical technologies to recover critical raw materials and precious metals from low-concentrated streams. Resources, Conservation and Recycling, 2019, 142, 177-188.	5.3	73
22	Fe₃O₄@MILâ€101 â€“ A Selective and Regenerable Adsorbent for the Removal of As Species from Water. European Journal of Inorganic Chemistry, 2016, 2016, 4395-4401.	1.0	72
23	New V^{IV}-Based Metalâ€“Organic Framework Having Framework Flexibility and High CO₂ Adsorption Capacity. Inorganic Chemistry, 2013, 52, 113-120.	1.9	68
24	Newly Designed Covalent Triazine Framework Based on Novel N-Heteroaromatic Building Blocks for Efficient CO₂ and H₂ Capture and Storage. ACS Applied Materials & Interfaces, 2018, 10, 1244-1249.	4.0	68
25	UiO-66-(SH)₂as stable, selective and regenerable adsorbent for the removal of mercury from water under environmentally-relevant conditions. Faraday Discussions, 2017, 201, 145-161.	1.6	67
26	l-proline modulated zirconium metal organic frameworks: Simple chiral catalysts for the aldol addition reaction. Journal of Catalysis, 2018, 365, 36-42.	3.1	65
27	Removal of Pesticides from Aqueous Solutions by Adsorption on Zeolites as Solid Adsorbents. Adsorption Science and Technology, 2015, 33, 457-485.	1.5	64
28	Au@UiO-66: a base free oxidation catalyst. RSC Advances, 2015, 5, 22334-22342.	1.7	59
29	Metal-free activation of molecular oxygen by covalent triazine frameworks for selective aerobic oxidation. Science Advances, 2020, 6, eaaz2310.	4.7	58
30	Vanadium metalâ€“organic frameworks: structures and applications. New Journal of Chemistry, 2014, 38, 1853-1867.	1.4	57
31	POM@MOF Hybrids: Synthesis and Applications. Catalysts, 2020, 10, 578.	1.6	56
32	POM@IL-MOFs â€“ inclusion of POMs in ionic liquid modified MOFs to produce recyclable oxidation catalysts. Catalysis Science and Technology, 2017, 7, 1478-1487.	2.1	55
33	A MoVI grafted Metal Organic Framework: Synthesis, characterization and catalytic investigations. Journal of Catalysis, 2014, 316, 201-209.	3.1	50
34	Synthesis, Structural Characterization, and Catalytic Performance of a Vanadium-Based Metal-Organic Framework (COMOC-3). European Journal of Inorganic Chemistry, 2012, 2012, 2819-2827.	1.0	47
35	Catalytic oxidative desulfurization of model and real diesel over a molybdenum anchored metal-organic framework. Microporous and Mesoporous Materials, 2019, 277, 245-252.	2.2	46
36	Raman spectroscopic study of bacterial endospores. Analytical and Bioanalytical Chemistry, 2007, 389, 2143-2151.	1.9	43

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37	Mechanistic insight into the cyclohexene epoxidation with VO(acac)2 and tert-butyl hydroperoxide. Journal of Catalysis, 2012, 294, 1-18.	3.1	40
38	Creation of Exclusive Artificial Cluster Defects by Selective Metal Removal in the (Zn, Zr) Mixed-Metal UiO-66. Journal of the American Chemical Society, 2021, 143, 21511-21518.	6.6	40
39	Amine-containing (nano-) Periodic Mesoporous Organosilica and its application in catalysis, sorption and luminescence. Microporous and Mesoporous Materials, 2020, 291, 109687.	2.2	39
40	Bimetallicâ€“Organic Framework as a Zeroâ€Leaching Catalyst in the Aerobic Oxidation of Cyclohexene. ChemCatChem, 2013, 5, 3657-3664.	1.8	38
41	Atomic Layer Deposition of Pt Nanoparticles within the Cages of MIL-101: A Mild and Recyclable Hydrogenation Catalyst. Nanomaterials, 2016, 6, 45.	1.9	38
42	Development of Covalent Triazine Frameworks as Heterogeneous Catalytic Supports. Polymers, 2019, 11, 1326.	2.0	38
43	Comparison of different solid adsorbents for the removal of mobile pesticides from aqueous solutions. Adsorption, 2015, 21, 243-254.	1.4	37
44	Immobilization of Ir(I) complex on covalent triazine frameworks for C H borylation reactions: A combined experimental and computational study. Journal of Catalysis, 2019, 371, 135-143.	3.1	37
45	Microwave induced â€œegg yolkâ€•structure in Cr/V-MIL-53. Chemical Communications, 2017, 53, 8478-8481.	2.2	33
46	Ti-functionalized NH2-MIL-47: An effective and stable epoxidation catalyst. Catalysis Today, 2013, 208, 97-105.	2.2	31
47	Amidoxime-functionalized covalent organic framework as simultaneous luminescent sensor and adsorbent for organic arsenic from water. Chemical Engineering Journal, 2022, 429, 132162.	6.6	31
48	An aliphatic hexene-covalent triazine framework for selective acetylene/methane and ethylene/methane separation. Journal of Materials Chemistry A, 2019, 7, 13188-13196.	5.2	30
49	Gas phase adsorption of alkanes, alkenes and aromatics on the sulfone-DUT-5 Metal Organic Framework. Microporous and Mesoporous Materials, 2015, 206, 217-225.	2.2	28
50	Direct Imaging of ALD Deposited Pt Nanoclusters inside the Giant Pores of MILâ€101. Particle and Particle Systems Characterization, 2016, 33, 382-387.	1.2	28
51	High-nitrogen containing covalent triazine frameworks as basic catalytic support for the Cu-catalyzed Henry reaction. Journal of Catalysis, 2019, 375, 242-248.	3.1	28
52	Synthesis, characterization and sorption properties of NH2-MIL-47. Physical Chemistry Chemical Physics, 2012, 14, 15562.	1.3	27
53	In Situ Electron Paramagnetic Resonance and X-ray Diffraction Monitoring of Temperature-Induced Breathing and Related Structural Transformations in Activated V-Doped MIL-53(Al). Journal of Physical Chemistry C, 2016, 120, 17400-17407.	1.5	26
54	Enhanced gas sorption and breathing properties of the new sulfone functionalized COMOC-2 metal organic framework. Dalton Transactions, 2016, 45, 9485-9491.	1.6	26

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55	Sensing the framework state and guest molecules in MIL-53(Al) via the electron paramagnetic resonance spectrum of V^{IV} dopant ions. Physical Chemistry Chemical Physics, 2017, 19, 24545-24554.	1.3	24
56	Atomic Layer Deposition of Titanium and Vanadium Oxide on Mesoporous Silica and Phenol/Formaldehyde Resins - the Effect of the Support on the Liquid Phase Epoxidation of Cyclohexene. European Journal of Inorganic Chemistry, 2012, 2012, 251-260.	1.0	23
57	Direct Synthesis of an Iridium(III) Bipyridine Metalâ€“Organic Framework as a Heterogeneous Catalyst for Aerobic Alcohol Oxidation. ChemCatChem, 2016, 8, 3672-3679.	1.8	23
58	Effect of Building Block Transformation in Covalent Triazineâ€Based Frameworks for Enhanced CO 2 Uptake and Metalâ€Free Heterogeneous Catalysis. Chemistry - A European Journal, 2020, 26, 1548-1557.	1.7	23
59	Catalytic carpets: Pt@MIL-101@electrospun PCL, a surprisingly active and robust hydrogenation catalyst. Journal of Catalysis, 2018, 360, 81-88.	3.1	21
60	Catalytic Performance of Vanadium MILâ€47 and Linkerâ€Substituted Variants in the Oxidation of Cyclohexene: A Combined Theoretical and Experimental Approach. ChemPlusChem, 2014, 79, 1183-1197.	1.3	20
61	Multiâ€frequency (S, X, Q and Wâ€band) EPR and ENDOR Study of Vanadium(IV) Incorporation in the Aluminium Metalâ€“Organic Framework MILâ€53. ChemPhysChem, 2015, 16, 2968-2973.	1.0	18
62	Synthesis and characterization of non-chelating rutheniumâ€“indenylidene olefin metathesis catalysts derived from substituted 1,1-diphenyl-2-propyn-1-ols. New Journal of Chemistry, 2015, 39, 1858-1867.	1.4	18
63	Novel hexaazatrinaphthalene-based covalent triazine frameworks as high-performance platforms for efficient carbon capture and storage. Microporous and Mesoporous Materials, 2019, 290, 109650.	2.2	18
64	Elucidating the promotional effect of a covalent triazine framework in aerobic oxidation. Applied Catalysis B: Environmental, 2020, 269, 118769.	10.8	17
65	A Visibleâ€Lightâ€Harvesting Covalent Organic Framework Bearing Single Nickel Sites as a Highly Efficient Sulfurâ€“Carbon Crossâ€Coupling Dual Catalyst. Angewandte Chemie, 2021, 133, 10915-10922.	1.6	17
66	Covalent triazine framework/carbon nanotube hybrids enabling selective reduction of CO₂ to CO at low overpotential. Green Chemistry, 2020, 22, 3095-3103.	4.6	16
67	A series of sulfonic acid functionalized mixed-linker DUT-4 analogues: synthesis, gas sorption properties and catalytic performance. Dalton Transactions, 2017, 46, 14356-14364.	1.6	15
68	Ce(III)-Based Frameworks: From 1D Chain to 3D Porous Metalâ€“Organic Framework. Crystal Growth and Design, 2019, 19, 7096-7105.	1.4	15
69	Straightforward preparation of fluorinated covalent triazine frameworks with significantly enhanced carbon dioxide and hydrogen adsorption capacities. Dalton Transactions, 2019, 48, 17612-17619.	1.6	15
70	Regeneration of Hopcalite used for the adsorption plasma catalytic removal of toluene by non-thermal plasma. Journal of Hazardous Materials, 2021, 402, 123877.	6.5	15
71	Synthesis, characterization and catalytic performance of Mo based metal- organic frameworks in the epoxidation of propylene by cumene hydroperoxide. Chinese Chemical Letters, 2017, 28, 1057-1061.	4.8	14
72	Catalysis in MOFs: general discussion. Faraday Discussions, 2017, 201, 369-394.	1.6	14

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73	Bifunctional Noble-Metal-Free Catalyst for the Selective Aerobic Oxidation-Knoevenagel One-Pot Reaction: Encapsulation of Polyoxometalates into an Alkylamine-Modified MIL-101 Framework. ACS Applied Materials & Interfaces, 2021, 13, 23558-23566.	4.0	13
74	Discovery of a novel, large pore phase in a bimetallic Al/V metalâ€“organic framework. Journal of Materials Chemistry A, 2017, 5, 24580-24584.	5.2	12
75	Polymerization in Carbone: A Novel Method for the Synthesis of More Sustainable Electrodes and Their Application as Cathodes for Lithiumâ€“Organic Energy Storage Materials Based On Vanillin. ACS Sustainable Chemistry and Engineering, 2020, 8, 3055-3064.	3.2	12
76	Oxygen-rich poly-bisvanillonitrile embedded amorphous zirconium oxide nanoparticles as reusable and porous adsorbent for removal of arsenic species from water. Journal of Hazardous Materials, 2021, 413, 125356.	6.5	11
77	Hydrogenative Ring-Rearrangement of Furfural to Cyclopentanone over Pd/UiO-66-NO2 with Tunable Missing-Linker Defects. Molecules, 2021, 26, 5736.	1.7	10
78	A coordinative saturated vanadium containing metal organic framework that shows a remarkable catalytic activity. Studies in Surface Science and Catalysis, 2010, 175, 329-332.	1.5	9
79	Electronic, magnetic and photophysical properties of MOFs and COFs: general discussion. Faraday Discussions, 2017, 201, 87-99.	1.6	9
80	Photo-epoxidation of (Î±, Î²)-pinene with molecular O2 catalyzed by a dioxo-molybdenum (VI)-based Metalâ€“Organic Framework. Research on Chemical Intermediates, 2021, 47, 4227-4244.	1.3	9
81	Alkyl group-tagged ruthenium indenylidene complexes: Synthesis, characterization and metathesis activity. Journal of Organometallic Chemistry, 2015, 791, 148-154.	0.8	7
82	Abatement of Toluene Using a Sequential Adsorption-Catalytic Oxidation Process: Comparative Study of Potential Adsorbent/Catalytic Materials. Catalysts, 2020, 10, 761.	1.6	7
83	Effect of the bulkiness of indenylidene moieties on the catalytic initiation and efficiency of second-generation ruthenium-based olefin metathesis catalysts. Catalysis Science and Technology, 2016, 6, 2092-2100.	2.1	6
84	New directions in gas sorption and separation with MOFs: general discussion. Faraday Discussions, 2017, 201, 175-194.	1.6	6
85	A Ru-Complex Tethered to a N-Rich Covalent Triazine Framework for Tandem Aerobic Oxidation-Knoevenagel Condensation Reactions. Molecules, 2021, 26, 838.	1.7	6
86	Rigid Nanoporous Urea-Based Covalent Triazine Frameworks for C2/C1 and CO2/CH4 Gas Separation. Molecules, 2021, 26, 3670.	1.7	5
87	EPR characterization of vanadium dopant sites in DUT-5(Al). Optical Materials, 2019, 94, 217-223.	1.7	4
88	Combined experimental and computational studies on preferential CO₂ adsorption over a zinc-based porous framework solid. New Journal of Chemistry, 2020, 44, 1806-1816.	1.4	4
89	Salenâ€decorated Periodic Mesoporous Organosilica: From Metalâ€assisted Epoxidation to Metalâ€free CO 2 Insertion. Chemistry - an Asian Journal, 2021, 16, 2126-2135.	1.7	3
90	Ru Catalyst Encapsulated into the Pores of MIL-101 MOF: Direct Visualization by TEM. Materials, 2021, 14, 4531.	1.3	2

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91	Identification of vanadium dopant sites in the metalâ€“organic framework DUT-5(Al). Physical Chemistry Chemical Physics, 2021, 23, 7088-7100.	1.3	1
92	Effect of Building Block Transformation in Covalent Triazineâ€Based Frameworks for Enhanced CO 2 Uptake and Metalâ€Free Heterogeneous Catalysis. Chemistry - A European Journal, 2020, 26, 1441-1441.	1.7	0