

Edy Abou-Hamad

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102
papers

2,720
citations

28
h-index

47
g-index

103
ext. papers

3,321
ext. citations

8.7
avg, IF

5.13
L-index

#	Paper	IF	Citations
102	The structure and binding mode of citrate in the stabilization of gold nanoparticles. <i>Nature Chemistry</i> , 2017 , 9, 890-895	17.6	158
101	Recognizing the Mechanism of Sulfurized Polyacrylonitrile Cathode Materials for LiB Batteries and beyond in AlB Batteries. <i>ACS Energy Letters</i> , 2018 , 3, 2899-2907	20.1	146
100	Structure-performance descriptors and the role of Lewis acidity in the methanol-to-propylene process. <i>Nature Chemistry</i> , 2018 , 10, 804-812	17.6	145
99	Synthesis of single-crystal-like nanoporous carbon membranes and their application in overall water splitting. <i>Nature Communications</i> , 2017 , 8, 13592	17.4	123
98	Sn surface-enriched PtSn bimetallic nanoparticles as a selective and stable catalyst for propane dehydrogenation. <i>Journal of Catalysis</i> , 2014 , 320, 52-62	7.3	116
97	Cooperative Effect of Monopodal Silica-Supported Niobium Complex Pairs Enhancing Catalytic Cyclic Carbonate Production. <i>Journal of the American Chemical Society</i> , 2015 , 137, 7728-39	16.4	100
96	Effect of Zeolite Topology and Reactor Configuration on the Direct Conversion of CO ₂ to Light Olefins and Aromatics. <i>ACS Catalysis</i> , 2019 , 9, 6320-6334	13.1	77
95	WMe ₆ tamed by silica: ?Si-O-WMe ₅ as an efficient, well-defined species for alkane metathesis, leading to the observation of a supported W-methyl/methylidyne species. <i>Journal of the American Chemical Society</i> , 2014 , 136, 1054-61	16.4	71
94	Highly Stable Phosphonate-Based MOFs with Engineered Bandgaps for Efficient Photocatalytic Hydrogen Production. <i>Advanced Materials</i> , 2020 , 32, e1906368	24	60
93	One-step electrochemical modification of carbon nanotubes by ruthenium complexes via new diazonium salts. <i>Journal of Electroanalytical Chemistry</i> , 2008 , 621, 277-285	4.1	60
92	Single-Site VO _x Moieties Generated on Silica by Surface Organometallic Chemistry: A Way To Enhance the Catalytic Activity in the Oxidative Dehydrogenation of Propane. <i>ACS Catalysis</i> , 2016 , 6, 5908-5921	13.1	59
91	Alkane metathesis with the tantalum methylidene [(?SiO)Ta(?CH ₂)Me ₂]/[(?SiO) ₂ Ta(?CH ₂)Me] generated from well-defined surface organometallic complex [(?SiO)Ta(V)Me ₄]. <i>Journal of the American Chemical Society</i> , 2015 , 137, 588-91	16.4	51
90	Conversion of actual flue gas CO ₂ via cycloaddition to propylene oxide catalyzed by a single-site, recyclable zirconium catalyst. <i>Journal of CO₂ Utilization</i> , 2017 , 20, 243-252	7.6	49
89	On the dynamic nature of Mo sites for methane dehydroaromatization. <i>Chemical Science</i> , 2018 , 9, 4801-4807	9.4	49
88	Controlling the hydrogenolysis of silica-supported tungsten pentamethyl leads to a class of highly electron deficient partially alkylated metal hydrides. <i>Chemical Science</i> , 2016 , 7, 1558-1568	9.4	45
87	Reactive surface organometallic complexes observed using dynamic nuclear polarization surface enhanced NMR spectroscopy. <i>Chemical Science</i> , 2017 , 8, 284-290	9.4	44
86	Carbon nanotubes and helical carbon nanofibers grown by chemical vapour deposition on C ₆₀ fullerene supported Pd nanoparticles. <i>Carbon</i> , 2011 , 49, 1101-1107	10.4	42

85	A Supramolecular View on the Cooperative Role of Brønsted and Lewis Acid Sites in Zeolites for Methanol Conversion. <i>Journal of the American Chemical Society</i> , 2019 , 141, 14823-14842	16.4	41
84	[(?SiO)Ta(V)Cl ₂ Me ₂]: a well-defined silica-supported tantalum(V) surface complex as catalyst precursor for the selective cocatalyst-free trimerization of ethylene. <i>Angewandte Chemie - International Edition</i> , 2012 , 51, 11886-9	16.4	41
83	Tandem Conversion of CO ₂ to Valuable Hydrocarbons in Highly Concentrated Potassium Iron Catalysts. <i>ChemCatChem</i> , 2019 , 11, 2879-2886	5.2	37
82	Heterostructured MXene and g-C ₃ N ₄ for high-rate lithium intercalation. <i>Nano Energy</i> , 2019 , 65, 104030	17.1	37
81	[Cu ₆₁ (StBu) ₂₆ S ₆ Cl ₆ H ₁₄] ⁺ : A Core-Shell Superatom Nanocluster with a Quasi-J ₃₆ Cu ₁₉ Core and an 18-Crown-6 Metal-Sulfide-like Stabilizing Belt 2019 , 1, 297-302		37
80	High-Purity Diamagnetic Single-Wall Carbon Nanotube Buckypaper. <i>Chemistry of Materials</i> , 2007 , 19, 2982-2986	9.6	37
79	Polymerization of conducting polymers inside carbon nanotubes. <i>Chemical Physics Letters</i> , 2006 , 431, 139-144	2.5	35
78	Well-Defined Surface Species [(?SiO)W(?O)Me ₃] Prepared by Direct Methylation of [(?SiO)W(?O)Cl ₃], a Catalyst for Cycloalkane Metathesis and Transformation of Ethylene to Propylene. <i>ACS Catalysis</i> , 2015 , 5, 2164-2171	13.1	31
77	Bipodal surface organometallic complexes with surface N-donor ligands and application to the catalytic cleavage of C-H and C-C bonds in n-butane. <i>Journal of the American Chemical Society</i> , 2013 , 135, 17943-51	16.4	31
76	Use of the Phen-NaDPO:Sn(SCN) ₂ Blend as Electron Transport Layer Results to Consistent Efficiency Improvements in Organic and Hybrid Perovskite Solar Cells. <i>Advanced Functional Materials</i> , 2019 , 29, 1905810	15.6	30
75	Acidity modification of ZSM-5 for enhanced production of light olefins from CO ₂ . <i>Journal of Catalysis</i> , 2020 , 381, 347-354	7.3	30
74	Synergy between Two Metal Catalysts: A Highly Active Silica-Supported Bimetallic W/Zr Catalyst for Metathesis of n-Decane. <i>Journal of the American Chemical Society</i> , 2016 , 138, 8595-602	16.4	28
73	A site-sensitive quasi-in situ strategy to characterize Mo/HZSM-5 during activation. <i>Journal of Catalysis</i> , 2019 , 370, 321-331	7.3	27
72	Hydrogenation of C ₆₀ in Peapods: Physical Chemistry in Nano Vessels. <i>Journal of Physical Chemistry C</i> , 2009 , 113, 8583-8587	3.8	27
71	Effect of support on metathesis of n-decane: drastic improvement in alkane metathesis with WMe ₅ linked to silica-alumina. <i>Chemistry - A European Journal</i> , 2015 , 21, 6100-6	4.8	26
70	A Silica-Supported Monoalkylated Tungsten Dioxo Complex Catalyst for Olefin Metathesis. <i>ACS Catalysis</i> , 2018 , 8, 2715-2729	13.1	26
69	Routes to the synthesis of carbon nanotube/polyacetylene composites by Ziegler-Natta polymerization of acetylene inside carbon nanotubes. <i>Current Applied Physics</i> , 2007 , 7, 39-41	2.6	26
68	Unearthing a Well-Defined Highly Active Bimetallic W/Ti Precatalyst Anchored on a Single Silica Surface for Metathesis of Propane. <i>Journal of the American Chemical Society</i> , 2017 , 139, 3522-3527	16.4	25

67	A well-defined mesoporous amine silica surface via a selective treatment of SBA-15 with ammonia. <i>Chemical Communications</i> , 2012 , 48, 3067-9	5.8	24
66	Bimetallic Pt-Sn nanocluster from the hydrogenolysis of a well-defined surface compound consisting of [(AlO) ₃ Pt(COD)Me] and [(AlO) ₃ SnPh ₃] fragments for propane dehydrogenation. <i>Journal of Catalysis</i> , 2019 , 374, 391-400	7.3	23
65	Smart covalent organic networks (CONs) with "on-off-on" light-switchable pores for molecular separation. <i>Science Advances</i> , 2020 , 6, eabb3188	14.3	23
64	Isolation and Characterization of Well-Defined Silica-Supported Azametallacyclopentane: A Key Intermediate in Catalytic Hydroaminoalkylation Reactions. <i>Advanced Synthesis and Catalysis</i> , 2015 , 357, 3148-3154	5.6	22
63	TiO ₂ -supported Pt single atoms by surface organometallic chemistry for photocatalytic hydrogen evolution. <i>Physical Chemistry Chemical Physics</i> , 2019 , 21, 24429-24440	3.6	22
62	Extremely Hydrophobic POPs to Access Highly Porous Storage Media and Capturing Agent for Organic Vapors. <i>Chem</i> , 2019 , 5, 180-191	16.2	22
61	Direct Functionalization of Nanodiamonds with Maleimide. <i>Chemistry of Materials</i> , 2014 , 26, 2766-2769	9.6	20
60	Methane reacts with heteropolyacids chemisorbed on silica to produce acetic acid under soft conditions. <i>Journal of the American Chemical Society</i> , 2013 , 135, 804-10	16.4	20
59	SOMC-Designed Silica Supported Tungsten Oxo Imidazolin-2-iminato Methyl Precatalyst for Olefin Metathesis Reactions. <i>Inorganic Chemistry</i> , 2017 , 56, 861-871	5.1	19
58	Facile and Efficient Synthesis of the Surface Tantalum Hydride (SiO) ₂ Ta ^{III} H and Tris-Siloxy Tantalum (SiO) ₃ Ta ^{III} Starting from Novel Tantalum Surface Species (SiO)TaMe ₄ and (SiO) ₂ TaMe ₃ . <i>Organometallics</i> , 2014 , 33, 1205-1211	3.8	19
57	A Silica-Supported Double-Decker Silsesquioxane Provides a Second Skin for the Selective Generation of Bipodal Surface Organometallic Complexes. <i>Organometallics</i> , 2012 , 31, 7610-7617	3.8	19
56	Well-defined silica-supported zirconium-imido complexes mediated heterogeneous imine metathesis. <i>Chemical Communications</i> , 2016 , 52, 4617-20	5.8	18
55	Confined adamantane molecules assembled to one dimension in carbon nanotubes. <i>Carbon</i> , 2011 , 49, 1159-1166	10.4	18
54	Coated sulfated zirconia/SAPO-34 for the direct conversion of CO ₂ to light olefins. <i>Catalysis Science and Technology</i> , 2020 , 10, 1507-1517	5.5	18
53	Aromatization of Ethylene [Main Intermediate for MDA?]. <i>ChemCatChem</i> , 2020 , 12, 544-549	5.2	18
52	Predicting the DNP-SENS efficiency in reactive heterogeneous catalysts from hydrophilicity. <i>Chemical Science</i> , 2018 , 9, 4866-4872	9.4	17
51	Solid-State NMR and DFT Studies on the Formation of Well-Defined Silica-Supported Tantalaziridines: From Synthesis to Catalytic Application. <i>Chemistry - A European Journal</i> , 2016 , 22, 3000-8	4.8	17
50	Organosilane with Gemini-Type Structure as the Mesoporegen for the Synthesis of the Hierarchical Porous ZSM-5 Zeolite. <i>Langmuir</i> , 2016 , 32, 2085-92	4	17

49	Surface enhanced dynamic nuclear polarization solid-state NMR spectroscopy sheds light on Brønsted-Lewis acid synergy during the zeolite catalyzed methanol-to-hydrocarbon process. <i>Chemical Science</i> , 2019 , 10, 8946-8954	9.4	17
48	Low temperature activation of methane over a zinc-exchanged heteropolyacid as an entry to its selective oxidation to methanol and acetic acid. <i>Chemical Communications</i> , 2014 , 50, 12348-51	5.8	17
47	Morphology control of anatase TiO for well-defined surface chemistry. <i>Physical Chemistry Chemical Physics</i> , 2018 , 20, 14362-14373	3.6	17
46	Well-defined silica supported aluminum hydride: another step towards the utopian single site dream?. <i>Chemical Science</i> , 2015 , 6, 5456-5465	9.4	15
45	Initial Carbon-Carbon Bond Formation during the Early Stages of Methane Dehydroaromatization. <i>Angewandte Chemie - International Edition</i> , 2020 , 59, 16741-16746	16.4	15
44	Well-defined azazirconacyclopropane complexes supported on silica structurally determined by 2D NMR comparative elucidation. <i>Chemical Communications</i> , 2013 , 49, 4616-8	5.8	15
43	Organic solvent and thermal resistant polytriazole membranes with enhanced mechanical properties cast from solutions in non-toxic solvents. <i>Journal of Membrane Science</i> , 2020 , 597, 117634	9.6	14
42	Quantifying the impact of dispersion, acidity and porosity of Mo/HZSM-5 on the performance in methane dehydroaromatization. <i>Applied Catalysis A: General</i> , 2019 , 574, 144-150	5.1	13
41	Room-Temperature Reactivity Of Silicon Nanocrystals With Solvents: The Case Of Ketone And Hydrogen Production From Secondary Alcohols: Catalysis?. <i>ACS Applied Materials & Interfaces</i> , 2015 , 7, 13794-800	9.5	13
40	Benzimidazole linked polymers (BILPs) in mixed-matrix membranes: Influence of filler porosity on the CO ₂ /N ₂ separation performance. <i>Journal of Membrane Science</i> , 2018 , 566, 213-222	9.6	13
39	Well-defined single-site monohydride silica-supported zirconium from azazirconacyclopropane. <i>Chemistry - A European Journal</i> , 2015 , 21, 4294-9	4.8	13
38	Spray-coated graphene oxide hollow fibers for nanofiltration. <i>Journal of Membrane Science</i> , 2020 , 606, 118006	9.6	12
37	Atomic-level organization of vicinal acid-base pairs through the chemisorption of aniline and derivatives onto mesoporous SBA15. <i>Chemical Science</i> , 2016 , 7, 6099-6105	9.4	12
36	Imine Metathesis Catalyzed by a Silica-Supported Hafnium Imido Complex. <i>ACS Catalysis</i> , 2018 , 8, 9440-9446	9.5	12
35	Hybrid electrolytes based on ionic liquids and amorphous porous silicon nanoparticles: Organization and electrochemical properties. <i>Applied Materials Today</i> , 2017 , 9, 10-20	6.6	11
34	Well-Defined Silica Grafted Molybdenum Bis(imido) Catalysts for Imine Metathesis Reactions. <i>Organometallics</i> , 2017 , 36, 1550-1556	3.8	11
33	Impact of small promoter amounts on coke structure in dry reforming of methane over Ni/ZrO ₂ . <i>Catalysis Science and Technology</i> , 2020 , 10, 3965-3974	5.5	11
32	Tungsten(VI) Carbyne/Bis(carbene) Tautomerization Enabled by N-Donor SBA15 Surface Ligands: A Solid-State NMR and DFT Study. <i>Angewandte Chemie - International Edition</i> , 2016 , 55, 11162-6	16.4	11

31	Exploiting the interactions between the ruthenium Hoveyda-Grubbs catalyst and Al-modified mesoporous silica: the case of SBA15 KCC-1. <i>Chemical Science</i> , 2018 , 9, 3531-3537	9.4	10
30	Clean chlorination of silica surfaces by a single-site substitution approach. <i>Dalton Transactions</i> , 2018 , 47, 4301-4306	4.3	10
29	CO ₂ activation through silylimido and silylamido zirconium hydrides supported on N-donor chelating SBA15 surface ligands. <i>Chemical Communications</i> , 2016 , 52, 2577-80	5.8	10
28	Well-defined mono(β -allyl)nickel complex η^5 -MONi(β -C ₃ H ₅) (M = Si or Al) grafted onto silica or alumina: a molecularly dispersed nickel precursor for syntheses of supported small size nickel nanoparticles. <i>Chemical Communications</i> , 2014 , 50, 7716-9	5.8	10
27	Single-Site Tetracoordinated Aluminum Hydride Supported on Mesoporous Silica. From Dream to Reality!. <i>Organometallics</i> , 2016 , 35, 3288-3294	3.8	10
26	From single-site tantalum complexes to nanoparticles of Ta N and TaO N supported on silica: elucidation of synthesis chemistry by dynamic nuclear polarization surface enhanced NMR spectroscopy and X-ray absorption spectroscopy. <i>Chemical Science</i> , 2017 , 8, 5650-5661	9.4	9
25	Docking of tetra-methyl zirconium to the surface of silica: a well-defined pre-catalyst for conversion of CO to cyclic carbonates. <i>Chemical Communications</i> , 2020 , 56, 3528-3531	5.8	9
24	Synthesis and characterization of a homogeneous and silica supported homoleptic cationic tungsten(vi) methyl complex: application in olefin metathesis. <i>Chemical Communications</i> , 2016 , 52, 11270-11273	5.8	9
23	Single site silica supported tetramethyl niobium by the SOMC strategy: synthesis, characterization and structure-activity relationship in the ethylene oligomerization reaction. <i>Chemical Communications</i> , 2017 , 53, 7068-7071	5.8	8
22	SOMC grafting of vanadium oxytriisopropoxide (VO(O Pr) ₃) on dehydroxylated silica; analysis of surface complexes and thermal restructuring mechanism.. <i>RSC Advances</i> , 2018 , 8, 20801-20808	3.7	8
21	Mechanistic Study of Hydroamination of Alkyne through Tantalum-Based Silica-Supported Surface Species. <i>ACS Catalysis</i> , 2019 , 9, 8719-8725	13.1	8
20	[(SiO) ₂ TaV(CH ₂)Cl ₂], the first tantalum methylidene species prepared and identified on the silica surface. <i>Journal of Organometallic Chemistry</i> , 2013 , 744, 3-6	2.3	7
19	Non-oxidative dehydrogenation of isobutane over supported vanadium oxide: nature of the active sites and coke formation. <i>Catalysis Science and Technology</i> , 2020 , 10, 6139-6151	5.5	6
18	Tetracrystalline Tetrablock Quarterpolymers: Four Different Crystallites under the Same Roof. <i>Angewandte Chemie - International Edition</i> , 2019 , 58, 16267-16274	16.4	5
17	Polytriazole membranes with ultrathin tunable selective layer for crude oil fractionation. <i>Science</i> , 2022 , 376, 1105-1110	33.3	5
16	Investigation of Surface Alkylation Strategy in SOMC: In Situ Generation of a Silica-Supported Tungsten Methyl Catalyst for Cyclooctane Metathesis. <i>Organometallics</i> , 2016 , 35, 2524-2531	3.8	4
15	Rapid fabrication of MOF-based mixed matrix membranes through digital light processing. <i>Materials Advances</i> , 2021 , 2, 2739-2749	3.3	4
14	Solvent-Free Synthesis of Quaternary Metal Sulfide Nanoparticles Derived from Thiourea. <i>Particle and Particle Systems Characterization</i> , 2018 , 35, 1700183	3.1	4

13	Electromagnetic Properties of Inner Double Walled Carbon Nanotubes Investigated by Nuclear Magnetic Resonance. <i>Journal of Nanomaterials</i> , 2013 , 2013, 1-6	3.2	3
12	The Importance of Thermal Treatment on Wet-Kneaded Silica-Magnesia Catalyst and Lebedev Ethanol-to-Butadiene Process. <i>Nanomaterials</i> , 2021 , 11,	5.4	3
11	A strategy to convert propane to aromatics (BTX) using TiNp grafted at the periphery of ZSM-5 by surface organometallic chemistry. <i>Dalton Transactions</i> , 2019 , 48, 6611-6620	4.3	2
10	Chemical and Structural Analysis of Carbon Materials Subjected to Alkaline Oxidation. <i>ACS Omega</i> , 2019 , 4, 18725-18733	3.9	2
9	The use of a well-defined surface organometallic complex as a probe molecule: $[(\text{SiO})\text{Ta}(\text{V})\text{Cl}_2\text{Me}_2]$ shows different isolated silanol sites on the silica surface. <i>Chemical Communications</i> , 2014 , 50, 11721-3	5.8	2
8	Rigid, non-porous and tunable hybrid p-aminobenzoate/TiO ₂ materials: Toward a fine structural determination of the immobilized RhCl(Ph ₃) ₃ complex. <i>Journal of Organometallic Chemistry</i> , 2015 , 784, 103-108	2.3	1
7	Titanium methyl tamed on silica: synthesis of a well-defined pre-catalyst for hydrogenolysis of n-alkane. <i>Chemical Communications</i> , 2020 , 56, 13401-13404	5.8	1
6	Cationic Tungsten(VI) Penta-Methyl Complex: Synthesis, Characterization and its Application in Olefin Metathesis Reaction. <i>Oil and Gas Science and Technology</i> , 2016 , 71, 21	1.9	1
5	Tetracrystalline Tetrablock Quarterpolymers: Four Different Crystallites under the Same Roof. <i>Angewandte Chemie</i> , 2019 , 131, 16413-16420	3.6	1
4	Tungsten Catalyst Incorporating a Well-Defined Tetracoordinated Aluminum Surface Ligand for Selective Metathesis of Propane, $[(\text{SiO})\text{W}(\text{V})\text{Cl}_2\text{Me}_2]$. <i>ChemCatChem</i> , 2019 , 11, 614-620	5.2	1
3	Synthesis and Characterization of Cationic Tetramethyl Tantalum(V) Complex. <i>Catalysts</i> , 2018 , 8, 507	4	1
2	Initial Carbon-Carbon Bond Formation during the Early Stages of Methane Dehydroaromatization. <i>Angewandte Chemie</i> , 2020 , 132, 16884	3.6	
1	The elemental analysis and multi-nuclear NMR study of an alkali molten salt used to digest reference and commercial SWCNT powders. <i>Journal of Analytical Atomic Spectrometry</i> , 2020 , 35, 2758-2769	3.7	