

# David KubiÄka

## List of Publications by Year in descending order

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114  
papers

5,512  
citations

71102

41  
h-index

85541

71  
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116  
all docs

116  
docs citations

116  
times ranked

4114  
citing authors

#	ARTICLE	IF	CITATIONS
1	Deoxygenation of vegetable oils over sulfided Ni, Mo and NiMo catalysts. <i>Applied Catalysis A: General</i> , 2010, 372, 199-208.	4.3	408
2	Hydroprocessed rapeseed oil as a source of hydrocarbon-based biodiesel. <i>Fuel</i> , 2009, 88, 456-460.	6.4	230
3	Deactivation of HDS catalysts in deoxygenation of vegetable oils. <i>Applied Catalysis A: General</i> , 2011, 394, 9-17.	4.3	199
4	Transformation of Vegetable Oils into Hydrocarbons over Mesoporous-Alumina-Supported CoMo Catalysts. <i>Topics in Catalysis</i> , 2009, 52, 161-168.	2.8	161
5	Fuel properties of hydroprocessed rapeseed oil. <i>Fuel</i> , 2010, 89, 611-615.	6.4	158
6	Overview of Analytical Methods Used for Chemical Characterization of Pyrolysis Bio-oil. <i>Energy &amp; Fuels</i> , 2014, 28, 385-402.	5.1	157
7	Utilization of Triglycerides and Related Feedstocks for Production of Clean Hydrocarbon Fuels and Petrochemicals: A Review. <i>Waste and Biomass Valorization</i> , 2010, 1, 293-308.	3.4	156
8	Recent Advances in Reactions of Alkylbenzenes Over Novel Zeolites: The Effects of Zeolite Structure and Morphology. <i>Catalysis Reviews - Science and Engineering</i> , 2014, 56, 333-402.	12.9	148
9	Aldol condensation of furfural and acetone over MgAl layered double hydroxides and mixed oxides. <i>Catalysis Today</i> , 2014, 223, 138-147.	4.4	143
10	Application of Molecular Sieves in Transformations of Biomass and Biomass-Derived Feedstocks. <i>Catalysis Reviews - Science and Engineering</i> , 2013, 55, 1-78.	12.9	142
11	Ring opening of decalin over zeolitesI. Activity and selectivity of proton-form zeolites. <i>Journal of Catalysis</i> , 2004, 222, 65-79.	6.2	131
12	Metal <sup>+</sup> Support Interactions in Zeolite-Supported Noble Metals: Influence of Metal Crystallites on the Support Acidity. <i>Journal of Physical Chemistry B</i> , 2006, 110, 4937-4946.	2.6	127
13	Aldol condensation of furfural and acetone on zeolites. <i>Catalysis Today</i> , 2014, 227, 154-162.	4.4	125
14	Ring opening of decalin over zeolitesII. Activity and selectivity of platinum-modified zeolites. <i>Journal of Catalysis</i> , 2004, 227, 313-327.	6.2	123
15	Premium quality renewable diesel fuel by hydroprocessing of sunflower oil. <i>Fuel</i> , 2011, 90, 2473-2479.	6.4	120
16	Effect of support-active phase interactions on the catalyst activity and selectivity in deoxygenation of triglycerides. <i>Applied Catalysis B: Environmental</i> , 2014, 145, 101-107.	20.2	115
17	The role of Ni species in the deoxygenation of rapeseed oil over NiMo-alumina catalysts. <i>Applied Catalysis A: General</i> , 2011, 397, 127-137.	4.3	109
18	Refinery co-processing of renewable feeds. <i>Progress in Energy and Combustion Science</i> , 2018, 68, 29-64.	31.2	108

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19	Conversion of Vegetable Oils into Hydrocarbons over CoMo/MCM-41 Catalysts. <i>Topics in Catalysis</i> , 2010, 53, 168-178.	2.8	104
20	Toward understanding of the role of Lewis acidity in aldol condensation of acetone and furfural using MOF and zeolite catalysts. <i>Catalysis Today</i> , 2015, 243, 158-162.	4.4	93
21	Ring opening of decalin over zeolites. Activity and selectivity of platinum-modified zeolites. <i>Journal of Catalysis</i> , 2004, 227, 313-327.	6.2	82
22	Opportunities for zeolites in biomass upgrading – Lessons from the refining and petrochemical industry. <i>Catalysis Today</i> , 2015, 243, 10-22.	4.4	81
23	Zeolite-Beta-supported platinum catalysts for hydrogenation/hydrodeoxygenation of pyrolysis oil model compounds. <i>Catalysis Today</i> , 2013, 204, 38-45.	4.4	80
24	Hydrocracking of petroleum vacuum distillate containing rapeseed oil: Evaluation of diesel fuel. <i>Fuel</i> , 2010, 89, 1508-1513.	6.4	76
25	Petroleomic Characterization of Pyrolysis Bio-oils: A Review. <i>Energy &amp; Fuels</i> , 2017, 31, 10283-10299.	5.1	73
26	Future Refining Catalysis - Introduction of Biomass Feedstocks. <i>Collection of Czechoslovak Chemical Communications</i> , 2008, 73, 1015-1044.	1.0	72
27	Nanosized TiO <sub>2</sub> – A promising catalyst for the aldol condensation of furfural with acetone in biomass upgrading. <i>Catalysis Today</i> , 2016, 277, 97-107.	4.4	68
28	Hydrotreatment of straw bio-oil from ablative fast pyrolysis to produce suitable refinery intermediates. <i>Fuel</i> , 2019, 238, 98-110.	6.4	64
29	Lignin to liquids over sulfided catalysts. <i>Catalysis Today</i> , 2012, 179, 191-198.	4.4	61
30	Comparative study of physico-chemical properties of laboratory and industrially prepared layered double hydroxides and their behavior in aldol condensation of furfural and acetone. <i>Catalysis Today</i> , 2015, 241, 221-230.	4.4	57
31	Influence of Mg-Al Mixed Oxide Compositions on Their Properties and Performance in Aldol Condensation. <i>Industrial &amp; Engineering Chemistry Research</i> , 2017, 56, 13411-13422.	3.7	57
32	Aldol condensation of furfural with acetone over ion-exchanged and impregnated potassium BEA zeolites. <i>Journal of Molecular Catalysis A</i> , 2016, 424, 358-368.	4.8	56
33	Peculiar behavior of MWW materials in aldol condensation of furfural and acetone. <i>Dalton Transactions</i> , 2014, 43, 10628.	3.3	52
34	Reconstructed Mg-Al hydrotalcites prepared by using different rehydration and drying time: Physico-chemical properties and catalytic performance in aldol condensation. <i>Applied Catalysis A: General</i> , 2017, 536, 85-96.	4.3	52
35	Application of orbitrap mass spectrometry for analysis of model bio-oil compounds and fast pyrolysis bio-oils from different biomass sources. <i>Journal of Analytical and Applied Pyrolysis</i> , 2017, 124, 230-238.	5.5	47
36	Bio-oil hydrotreating over conventional CoMo & NiMo catalysts: The role of reaction conditions and additives. <i>Fuel</i> , 2017, 198, 49-57.	6.4	47

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37	Catalytic pyrolysis of low density polyethylene over H- $\beta$ , H-Y, H-Mordenite, and H-Ferrierite zeolite catalysts: Influence of acidity and structures. <i>Kinetics and Catalysis</i> , 2007, 48, 535-540.	1.0	45
38	Transesterification of rapeseed oil by Mg-Al mixed oxides with various Mg/Al molar ratio. <i>Chemical Engineering Journal</i> , 2015, 263, 160-167.	12.7	45
39	Quantitative Study of Straw Bio-oil Hydrodeoxygenation over a Sulfided NiMo Catalyst. <i>ACS Sustainable Chemistry and Engineering</i> , 2019, 7, 7080-7093.	6.7	45
40	Quantitative analysis of pyrolysis bio-oils: A review. <i>TrAC - Trends in Analytical Chemistry</i> , 2020, 126, 115857.	11.4	44
41	HDO catalysts for triglycerides conversion into pyrolysis and isomerization feedstock. <i>Fuel</i> , 2014, 121, 57-64.	6.4	42
42	Characterization of potassium-modified FAU zeolites and their performance in aldol condensation of furfural and acetone. <i>Applied Catalysis A: General</i> , 2018, 549, 8-18.	4.3	41
43	Gas transport properties and pervaporation performance of fluoropolymer gel membranes based on pure and mixed ionic liquids. <i>Separation and Purification Technology</i> , 2013, 109, 87-97.	7.9	40
44	Unprecedented selectivities in aldol condensation over Mg-Al hydrotalcite in a fixed bed reactor setup. <i>Catalysis Communications</i> , 2015, 58, 89-92.	3.3	37
45	Ring Opening of Decalin Over Zeolite-Supported Iridium Catalysts. <i>Topics in Catalysis</i> , 2010, 53, 1438-1445.	2.8	36
46	Chemical Characterization of Pyrolysis Bio-oil: Application of Orbitrap Mass Spectrometry. <i>Energy &amp; Fuels</i> , 2015, 29, 3233-3240.	5.1	36
47	The occurrence of Cannizzaro reaction over Mg-Al hydrotalcites. <i>Applied Catalysis A: General</i> , 2016, 525, 215-225.	4.3	35
48	Towards understanding the hydrodeoxygenation pathways of furfural-acetone aldol condensation products over supported Pt catalysts. <i>Catalysis Science and Technology</i> , 2016, 6, 1829-1841.	4.1	34
49	The role of alumina support in the deoxygenation of rapeseed oil over NiMo-alumina catalysts. <i>Catalysis Today</i> , 2011, 176, 409-412.	4.4	33
50	Catalytic co-hydroprocessing of gasoil-palm oil/AVO mixtures over a NiMo/Al <sub>2</sub> O <sub>3</sub> catalyst. <i>Fuel</i> , 2014, 116, 49-55.	6.4	33
51	Hydrodeoxygenation of Isoeugenol over Ni- and Co-Supported Catalysts. <i>ACS Sustainable Chemistry and Engineering</i> , 2019, 7, 14545-14560.	6.7	33
52	Catalytic Transfer Hydrogenation of Furfural over Co <sub>3</sub> O <sub>4</sub> -Al <sub>2</sub> O <sub>3</sub> Hydrotalcite-derived Catalyst. <i>ChemCatChem</i> , 2020, 12, 1467-1475.	3.7	31
53	Aldose to ketose interconversion: galactose and arabinose isomerization over heterogeneous catalysts. <i>Catalysis Science and Technology</i> , 2017, 7, 5321-5331.	4.1	29
54	Solvent effects in hydrodeoxygenation of furfural-acetone aldol condensation products over Pt/TiO <sub>2</sub> catalyst. <i>Applied Catalysis A: General</i> , 2017, 530, 174-183.	4.3	28

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55	(V)/Hydrotalcite, (V)/Al <sub>2</sub> O <sub>3</sub> , (V)/TiO <sub>2</sub> and (V)/SBA-15 catalysts for the partial oxidation of ethanol to acetaldehyde. <i>Journal of Molecular Catalysis A</i> , 2016, 420, 178-189.	4.8	27
56	Ring-opening of decalin – Kinetic modelling. <i>Fuel</i> , 2009, 88, 366-373.	6.4	26
57	The effect of oxygenates structure on their deoxygenation over USY zeolite. <i>Catalysis Today</i> , 2013, 204, 46-53.	4.4	26
58	Using Mg–Al Mixed Oxide and Reconstructed Hydrotalcite as Basic Catalysts for Aldol Condensation of Furfural and Cyclohexanone. <i>ChemCatChem</i> , 2018, 10, 1464-1475.	3.7	26
59	Efficient One-Stage Bio-Oil Upgrading over Sulfided Catalysts. <i>ACS Sustainable Chemistry and Engineering</i> , 2020, 8, 15149-15167.	6.7	25
60	The development of the method of low-temperature peat pyrolysis on the basis of aluminosilicate catalytic system. <i>Chemical Engineering Journal</i> , 2007, 134, 162-167.	12.7	24
61	The Effect of Thermal Pre-Treatment on Structure, Composition, Basicity and Catalytic Activity of Mg/Al Mixed Oxides. <i>Topics in Catalysis</i> , 2013, 56, 586-593.	2.8	24
62	Extra-Large-Pore Zeolites with UTL Topology: Control of the Catalytic Activity by Variation in the Nature of the Active Sites. <i>ChemCatChem</i> , 2013, 5, 1891-1898.	3.7	24
63	Physico-Chemical Properties of MgGa Mixed Oxides and Reconstructed Layered Double Hydroxides and Their Performance in Aldol Condensation of Furfural and Acetone. <i>Frontiers in Chemistry</i> , 2018, 6, 176.	3.6	24
64	On the influence of acidic admixtures in furfural on the performance of MgAl mixed oxide catalysts in aldol condensation of furfural and acetone. <i>Catalysis Today</i> , 2021, 367, 248-257.	4.4	24
65	On the mutual interactions between noble metal crystallites and zeolitic supports and their impacts on catalysis. <i>Journal of Molecular Catalysis A</i> , 2007, 264, 192-201.	4.8	23
66	Clinoptilolite foams prepared by alkali activation of natural zeolite and their post-synthesis modifications. <i>Microporous and Mesoporous Materials</i> , 2019, 282, 169-178.	4.4	23
67	Hydrotreating of Triglyceride-Based Feedstocks in Refineries. <i>Advances in Chemical Engineering</i> , 2013, , 141-194.	0.9	22
68	Activity of Molybdenum Oxide Catalyst Supported on Al <sub>2</sub> O <sub>3</sub> , TiO <sub>2</sub> , and SiO <sub>2</sub> Matrix in the Oxidative Dehydrogenation of n-Butane. <i>Topics in Catalysis</i> , 2015, 58, 866-876.	2.8	22
69	Bio-based refinery intermediate production via hydrodeoxygenation of fast pyrolysis bio-oil. <i>Renewable Energy</i> , 2021, 168, 593-605.	8.9	22
70	Fischer–Tropsch product as a co-feed for refinery hydrocracking unit. <i>Fuel</i> , 2013, 105, 432-439.	6.4	20
71	Aspects of Mg–Al mixed oxide activity in transesterification of rapeseed oil in a fixed-bed reactor. <i>Fuel Processing Technology</i> , 2014, 122, 176-181.	7.2	20
72	CuZn Catalysts Superior to Adkins Catalysts for Dimethyl Adipate Hydrogenolysis. <i>ChemCatChem</i> , 2019, 11, 2169-2178.	3.7	20

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73	Upgrading of Fischerâ€Tropsch Waxes by Fluid Catalytic Cracking. <i>Industrial &amp; Engineering Chemistry Research</i> , 2012, 51, 8849-8857.	3.7	19
74	Synthesis of Ru-modified MCM-41 Mesoporous Material, Y and Beta Zeolite Catalysts for Ring Opening of Decalin. <i>Topics in Catalysis</i> , 2009, 52, 380-386.	2.8	17
75	The comparison of Co, Ni, Mo, CoMo and NiMo sulfided catalysts in rapeseed oil hydrodeoxygenation. <i>Reaction Kinetics, Mechanisms and Catalysis</i> , 2017, 122, 333-341.	1.7	17
76	Effect of Calcination Atmosphere and Temperature on the Hydrogenolysis Activity and Selectivity of Copper-Zinc Catalysts. <i>Catalysts</i> , 2018, 8, 446.	3.5	17
77	Conversion of ethanol to acetaldehyde over VOX-SiO <sub>2</sub> catalysts: the effects of support texture and vanadium speciation. <i>Reaction Kinetics, Mechanisms and Catalysis</i> , 2017, 121, 353-369.	1.7	15
78	On the importance of transesterification by-products during hydrogenolysis of dimethyl adipate to hexanediol. <i>Catalysis Communications</i> , 2018, 111, 16-20.	3.3	15
79	The role of ZnO in the catalytic behaviour of Zn-Al mixed oxides in aldol condensation of furfural with acetone. <i>Catalysis Today</i> , 2021, 379, 181-191.	4.4	13
80	Integration of stabilized bio-oil in light cycle oil hydrotreatment unit targeting hybrid fuels. <i>Fuel Processing Technology</i> , 2022, 230, 107220.	7.2	13
81	Improved kinetic data from analysis of complex hydrocarbon mixtures by using SIMCA. <i>Analytica Chimica Acta</i> , 2005, 537, 339-348.	5.4	12
82	Reaction Routes in Selective Ring Opening of Naphthenes. <i>Topics in Catalysis</i> , 2010, 53, 1172-1175.	2.8	12
83	One-pot citral transformation to menthol over bifunctional micro- and mesoporous metal modified catalysts: Effect of catalyst support and metal. <i>Journal of Molecular Catalysis A</i> , 2005, , .	4.8	11
84	Non-traditional three-phase reactor setup for simultaneous acoustic irradiation and hydrogenation. <i>Journal of Chemical Technology and Biotechnology</i> , 2003, 78, 203-207.	3.2	10
85	Does the structure of CuZn hydroxycarbonate precursors affect the intrinsic hydrogenolysis activity of CuZn catalysts?. <i>Catalysis Science and Technology</i> , 2020, 10, 3303-3314.	4.1	10
86	Decalin ring opening reactions on ruthenium-containing zeolite MCM-41. <i>Petroleum Chemistry</i> , 2009, 49, 90-93.	1.4	9
87	Catalytic conversion of furfural-acetone condensation products into bio-derived C <sub>8</sub> linear alcohols over Ni Cu/Al-SBA-15. <i>Catalysis Communications</i> , 2018, 114, 42-45.	3.3	9
88	Effect of Temperature on the Hydrotreatment of Sewage Sludge-Derived Pyrolysis Oil and Behavior of Ni-Based Catalyst. <i>Catalysts</i> , 2020, 10, 1273.	3.5	9
89	Do metal-oxide promoters of Cu hydrogenolysis catalysts affect the Cu intrinsic activity?. <i>Applied Catalysis A: General</i> , 2020, 608, 117889.	4.3	9
90	Improved bio-oil upgrading due to optimized reactor temperature profile. <i>Fuel Processing Technology</i> , 2021, 222, 106977.	7.2	9

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91	On the way to improve cetane number in diesel fuels: Ring opening of decalin over Ir-modified embedded mesoporous materials. <i>Catalysis in Industry</i> , 2013, 5, 105-122.	0.7	8
92	Towards efficient Cu/ZnO catalysts for ester hydrogenolysis: The role of synthesis method. <i>Applied Catalysis A: General</i> , 2021, 624, 118320.	4.3	8
93	Studies on Sodium Lignosulfonate Depolymerization Over Al <sub>2</sub> O <sub>3</sub> Supported Catalysts Loaded with Metals and Metal Oxides in a Continuous Flow Reactor. <i>Topics in Catalysis</i> , 2013, 56, 794-799.	2.8	7
94	Fuels from Reliable Bio-based Refinery Intermediates: BioMates. <i>Waste and Biomass Valorization</i> , 2020, 11, 579-598.	3.4	7
95	On the Effect of the M <sup>3+</sup> Origin on the Properties and Aldol Condensation Performance of MgM <sup>3+</sup> Hydrotalcites and Mixed Oxides. <i>Catalysts</i> , 2021, 11, 992.	3.5	7
96	Ring opening of decalin over Pt-and Ir-modified SAPO-5 and VPI-5 zeolite catalysts. <i>Studies in Surface Science and Catalysis</i> , 2005, 158, 1669-1676.	1.5	6
97	Synthesis of Pt-modified MCM-41 mesoporous molecular sieve catalysts: influence of methods of Pt introduction in MCM-41 on physico-chemical and catalytic properties for ring opening of decalin. <i>Studies in Surface Science and Catalysis</i> , 2006, , 401-408.	1.5	6
98	Aspects of stability of K/Al <sub>2</sub> O <sub>3</sub> catalysts for the transesterification of rapeseed oil in batch and fixed-bed reactors. <i>Chinese Journal of Catalysis</i> , 2014, 35, 1084-1090.	14.0	6
99	On the origin of the transesterification reaction route during dimethyl adipate hydrogenolysis. <i>Applied Catalysis A: General</i> , 2020, 606, 117825.	4.3	6
100	Understanding of the key properties of supported Cu-based catalysts and their influence on ester hydrogenolysis. <i>Catalysis Today</i> , 2022, 397-399, 173-181.	4.4	5
101	Highly effective Pd/ZSM-12 bifunctional catalysts by in-situ glow discharge plasma reduction: the effect of metal function on the catalytic performance for n-hexadecane hydroisomerization. <i>Journal of the Taiwan Institute of Chemical Engineers</i> , 2022, 134, 104303.	5.3	5
102	Hydrogenation of Bio-Oil Model Compounds over Raney-Ni at Ambient Pressure. <i>Catalysts</i> , 2019, 9, 268.	3.5	4
103	Alternative Preparation of Improved NiMo-Alumina Deoxygenation Catalysts. <i>Frontiers in Chemistry</i> , 2020, 8, 216.	3.6	4
104	Critical evaluation of parameters affecting Cu nanoparticles formation and their activity in dimethyl adipate hydrogenolysis. <i>Catalysis Today</i> , 2022, 387, 61-71.	4.4	4
105	Semi-Batch Hydrotreatment of Lignin-Derived Phenolic Compounds over Raney-Ni with a Continuous Regeneration of the H-Donor Solvent. <i>ChemSusChem</i> , 2022, 15, .	6.8	4
106	Fading memory of MgAl hydrotalcites at mild rehydration conditions deteriorates their performance in aldol condensation. <i>Applied Catalysis A: General</i> , 2022, 632, 118482.	4.3	4
107	The promotion effects of MoO <sub>x</sub> species in the highly effective NiMo/MgAl <sub>2</sub> O <sub>4</sub> catalysts for the hydrodeoxygenation of methyl palmitate. <i>Journal of Environmental Chemical Engineering</i> , 2022, 10, 107761.	6.7	4
108	Classification and pattern recognition of acyclic octenes based on mass spectra. <i>Talanta</i> , 2007, 72, 1573-1580.	5.5	3

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109	Thermodynamic balance in reaction system of total vegetable oil hydrogenation. Chemical Engineering Journal, 2008, , .	12.7	3
110	Partial oxidation of ethanol over ZrO <sub>2</sub> -supported vanadium catalysts. Reaction Kinetics, Mechanisms and Catalysis, 2017, 121, 161-173.	1.7	3
111	Understanding of the Key Factors Determining the Activity and Selectivity of CuZn Catalysts in Hydrogenolysis of Alkyl Esters to Alcohols. Catalysts, 2021, 11, 1417.	3.5	3
112	Novel Polymer-Silica Composite-Based Bifunctional Catalysts for Hydrodeoxygenation of 4-(2-Furyl)-3-Buten-2-One as Model Substance for Furfural-Acetone Aldol Condensation Products. Applied Sciences (Switzerland), 2019, 9, 2438.	2.5	2
113	Liquid-phase hydrogenation of diethylbenzenes. Catalysis Today, 2005, 100, 453-456.	4.4	1
114	Hydroconversion of sunflower oil to fatty alcohols and hydrocarbons using CuZn and CuZn-HBEA-based catalysts. Catalysis Today, 2023, 424, 113841.	4.4	1