Michiel Makkee

List of Publications by Year
in descending order

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133 papers	10,003 citations	47006 47 h-index	36028 97 g-index
139 all docs	139 docs citations	139 times ranked	9477 citing authors

#	Article	IF	Citations
1	A new dynamic N2O reduction system based on Rh/ceriaâ€“zirconia: from mechanistic insight towards a practical application. Catalysis Science and Technology, 2021, 11, 671-680.	4.1	2
2	Unveiling the Structure Sensitivity for Direct Conversion of Syngas to C2-Oxygenates with a Multicomponent-Promoted Rh Catalyst. Catalysis Letters, 2020, 150, 482-492.	2.6	3
3	Adverse effects of potassium on NOx reduction over Di-Air catalyst (Rh/La-Ce-Zr). Applied Catalysis B: Environmental, 2019, 259, 117895.	20.2	3
4	Tailoring the multiphase flow pattern of gas and liquid through micro-packed bed of pillars. Reaction Chemistry and Engineering, 2019, 4, 838-851.	3.7	7
5	Membrane reactors for biodiesel production with strontium oxide as a heterogeneous catalyst. Fuel Processing Technology, 2019, 185, 1-7.	7.2	33
6	NOx reduction in the Di-Air system over noble metal promoted ceria. Applied Catalysis B: Environmental, 2018, 231, 200-212.	20.2	19
7	Fundamental understanding of the Di-Air system (an alternative NO abatement technology). I: The difference in reductant pre-treatment of ceria. Applied Catalysis B: Environmental, 2018, 223, 125-133.	20.2	8
8	The influence of CO2 on NO reduction into N2 over reduced ceria-based catalyst. Applied Catalysis B: Environmental, 2018, 221, 196-205.	20.2	20
9	An in situ reactivation study reveals the supreme stability of Î³-alumina for the oxidative dehydrogenation of ethylbenzene to styrene. Catalysis Science and Technology, 2018, 8, 3733-3736.	4.1	9
10	High-temperature Fischer-Tropsch synthesis over FeTi mixed oxide model catalysts: Tailoring activity and stability by varying the Ti/Fe ratio. Applied Catalysis A: General, 2017, 533, 38-48.	4.3	16
11	Syngas production from electrochemical reduction of CO₂: current status and prospective implementation. Green Chemistry, 2017, 19, 2326-2346.	9.0	281
12	Oxygen Vacancies in Reduced Rh/ and Pt/Ceria for Highly Selective and Reactive Reduction of NO into N₂ in excess of O₂. ChemCatChem, 2017, 9, 2935-2938.	3.7	20
13	Covalent organic frameworks as supports for a molecular Ni based ethylene oligomerization catalyst for the synthesis of long chain olefins. Journal of Catalysis, 2017, 345, 270-280.	6.2	60
14	Facile Method for the Preparation of Covalent Triazine Framework coated Monoliths as Catalyst Support: Applications in C1 Catalysis. ACS Applied Materials & Interfaces, 2017, 9, 26060-26065.	8.0	41
15	Low-temperature atomic layer deposition delivers more active and stable Pt-based catalysts. Nanoscale, 2017, 9, 10802-10810.	5.6	19
16	Challenges in the Greener Production of Formates/Formic Acid, Methanol, and DME by Heterogeneously Catalyzed CO₂Hydrogenation Processes. Chemical Reviews, 2017, 117, 9804-9838.	47.7	1,058
17	Structural and elemental influence from various MOFs on the performance of Fe@C catalysts for Fischerâ€“Tropsch synthesis. Faraday Discussions, 2017, 197, 225-242.	3.2	36
18	Reaction Mechanism Study of the Di-Air System and Selectivity and Reactivity of NO Reduction in Excess O2. SAE International Journal of Engines, 2017, 10, 1573-1579.	0.4	1

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19	Pulmonary challenge with carbon nanoparticles induces a dose-dependent increase in circulating leukocytes in healthy males. BMC Pulmonary Medicine, 2017, 17, 121.	2.0	5
20	Shaping Covalent Triazine Frameworks for the Hydrogenation of Carbon Dioxide to Formic Acid. ChemCatChem, 2016, 8, 2217-2221.	3.7	65
21	Next Generation Automotive DeNO_x Catalysts: Ceria What Else?. ChemCatChem, 2016, 8, 102-105.	3.7	25
22	Elucidating the Nature of Fe Species during Pyrolysis of the Fe-BTC MOF into Highly Active and Stable Fischerâ€“Tropsch Catalysts. ACS Catalysis, 2016, 6, 3236-3247.	11.2	176
23	Promotion or additive activity? The role of gold on zirconia supported iron oxide in high temperature water-gas shift. Journal of Molecular Catalysis A, 2016, 420, 115-123.	4.8	3
24	Shaping Covalent Triazine Framework for the Hydrogenation of Carbon Dioxide to Formic Acid. ChemCatChem, 2016, 8, 2173-2173.	3.7	1
25	Efficient Electrochemical Production of Syngas from CO₂ and H₂O by using a Nanostructured Ag/gâ€C₃N₄ Catalyst. ChemElectroChem, 2016, 3, 1497-1502.	3.4	46
26	Contact dynamics for a solidâ€“solid reaction mediated by gas-phase oxygen: Study on the soot oxidation over ceria-based catalysts. Applied Catalysis B: Environmental, 2016, 199, 96-107.	20.2	55
27	Fundamental Understanding of the Di-Air System: The Role of Ceria in NO x Abatement. Topics in Catalysis, 2016, 59, 854-860.	2.8	14
28	On the thermal stabilization of carbon-supported SiO2 catalysts by phosphorus: Evaluation in the oxidative dehydrogenation of ethylbenzene to styrene and a comparison with relevant catalysts. Applied Catalysis A: General, 2016, 514, 173-181.	4.3	11
29	Catalyst testing in multiphase micro-packed-bed reactors; criterion for radial mass transport. Catalysis Today, 2016, 259, 354-359.	4.4	34
30	Revisiting the synthesis of Au/TiO2 P25 catalyst and application in the low temperature waterâ€“gas shift under realistic conditions. Catalysis Today, 2015, 244, 19-28.	4.4	7
31	Synthesis of highly dispersed Pd nanoparticles supported on multi-walled carbon nanotubes and their excellent catalytic performance for oxidation of benzyl alcohol. Catalysis Science and Technology, 2015, 5, 4144-4153.	4.1	49
32	Metal organic framework-mediated synthesis of highly active and stable Fischer-Tropsch catalysts. Nature Communications, 2015, 6, 6451.	12.8	325
33	Effect of rhodium on the waterâ€“gas shift performance of Fe2O3/ZrO2 and CeO2/ZrO2: Influence of rhodium precursor. Catalysis Today, 2015, 242, 168-177.	4.4	12
34	Kinetics of the high temperature waterâ€“gas shift over Fe2O3/ZrO2, Rh/ZrO2 and Rh/Fe2O3/ZrO2. Chemical Engineering Journal, 2015, 263, 427-434.	12.7	15
35	Inhibition of a Gold-Based Catalyst in Benzyl Alcohol Oxidation: Understanding and Remediation. Catalysts, 2014, 4, 89-115.	3.5	40
36	Application of staged O2 feeding in the oxidative dehydrogenation of ethylbenzene to styrene over Al2O3 and P2O5/SiO2 catalysts. Applied Catalysis A: General, 2014, 476, 204-214.	4.3	18

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37	Catalysis engineering of bifunctional solids for the one-step synthesis of liquid fuels from syngas: a review. Catalysis Science and Technology, 2014, 4, 893-907.	4.1	148
38	The role of rhodium in the mechanism of the waterâ€“gas shift over zirconia supported iron oxide. Journal of Catalysis, 2014, 313, 34-45.	6.2	30
39	Electronic Metalâ€“Support Interactions in Singleâ€Atom Catalysts. Angewandte Chemie - International Edition, 2014, 53, 3418-3421.	13.8	347
40	Sorbitol dehydration in a ZnCl₂molten salt hydrate medium: molecular modeling. Catalysis Science and Technology, 2014, 4, 152-163.	4.1	16
41	Sulfur as a Selectivity Modifier in a Highly Active Rh/Fe₂O₃/ZrO₂ Catalyst for Waterâ€“Gas Shift. ChemCatChem, 2014, 6, 2240-2243.	3.7	2
42	Validation of a waterâ€“gas shift reactor model based on a commercial FeCr catalyst for pre-combustion CO 2 capture in an IGCC power plant. International Journal of Greenhouse Gas Control, 2014, 29, 82-91.	4.6	13
43	On the stability of conventional and nano-structured carbon-based catalysts in the oxidative dehydrogenation of ethylbenzene under industrially relevant conditions. Carbon, 2014, 77, 329-340.	10.3	24
44	Innentitelbild: Electronic Metal-Support Interactions in Single-Atom Catalysts (Angew. Chem. 13/2014). Angewandte Chemie, 2014, 126, 3350-3350.	2.0	3
45	Simultaneous hydrolysis and hydrogenation of cellobiose to sorbitol in molten salt hydrate media. Catalysis Science and Technology, 2013, 3, 1565.	4.1	31
46	Oxidative dehydrogenation of ethylbenzene to styrene over alumina: effect of calcination. Catalysis Science and Technology, 2013, 3, 519-526.	4.1	28
47	Sorbitol dehydration into isosorbide in a molten salt hydrate medium. Catalysis Science and Technology, 2013, 3, 1540.	4.1	64
48	Breaking the Fischerâ€“Tropsch synthesis selectivity: direct conversion of syngas to gasoline over hierarchical Co/H-ZSM-5 catalysts. Catalysis Science and Technology, 2013, 3, 572-575.	4.1	114
49	Kinetics of propane dehydrogenation over Ptâ€“Sn/Al₂O₃. Catalysis Science and Technology, 2013, 3, 962-971.	4.1	46
50	A â€œSmartâ•Hollandite DeNO_x Catalyst: Selfâ€Protection against Alkali Poisoning. Angewandte Chemie - International Edition, 2013, 52, 660-664.	13.8	85
51	Hierarchical H-ZSM-5-supported cobalt for the direct synthesis of gasoline-range hydrocarbons from syngas: Advantages, limitations, and mechanistic insight. Journal of Catalysis, 2013, 305, 179-190.	6.2	192
52	Mechanistic Insight into the Synthesis of Higher Alcohols from Syngas: The Role of K Promotion on MoS₂ Catalysts. ACS Catalysis, 2013, 3, 1634-1637.	11.2	113
53	Catalyst Performance Testing in Multiphase Systems: Implications of Using Small Catalyst Particles in Hydrodesulfurization. Industrial & Engineering Chemistry Research, 2013, 52, 9069-9085.	3.7	36
54	Six-flow operations for catalyst development in Fischer-Tropsch synthesis: Bridging the gap between high-throughput experimentation and extensive product evaluation. Review of Scientific Instruments, 2013, 84, 124101.	1.3	12

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55	Influence of Diesel Fuel Characteristics on Soot Oxidation Properties. Industrial & Engineering Chemistry Research, 2012, 51, 7559-7564.	3.7	13
56	Fluid catalytic cracking: Processing opportunities for Fischerâ€“Tropsch waxes and vegetable oils to produce transportation fuels and light olefins. Microporous and Mesoporous Materials, 2012, 164, 148-163.	4.4	53
57	Catalysed ethylbenzene dehydrogenation in CO2 or N2â€”Carbon deposits as the active phase. Applied Catalysis A: General, 2012, 417-418, 163-173.	4.3	36
58	The role of RWGS in the dehydrogenation of ethylbenzene to styrene in CO2. Applied Catalysis A: General, 2012, 423-424, 59-68.	4.3	20
59	On-site low-pressure diesel HDS for fuel cell applications: Deepening the sulfur content to â©½1ppm. Fuel, 2011, 90, 3021-3027.	6.4	11
60	Volatile tracer dispersion in multi-phase packed beds. Chemical Engineering Science, 2010, 65, 3972-3985.	3.8	8
61	Cellulose Conversion to Isosorbide in Molten Salt hydrate Media. ChemSusChem, 2010, 3, 325-328.	6.8	118
62	Effective Gasoline Production Strategies by Catalytic Cracking of Rapeseed Vegetable Oil in Refinery Conditions. ChemSusChem, 2010, 3, 807-810.	6.8	24
63	(Particle) Emissions of Small 2- & 4-Stroke Scooters with (Hydrous) Ethanol Blends. , 2010, , .		4
64	Transient Behavior and Stability in Miniaturized Multiphase Packed Bed Reactors. Industrial & Engineering Chemistry Research, 2010, 49, 1033-1040.	3.7	40
65	Impact of Diesel Fuel Composition on Soot Oxidation Characteristics. , 2009, , .		4
66	Acrylate and propoxy-groups: Contributors to deactivation of Au/TiO2 in the epoxidation of propene. Journal of Catalysis, 2009, 266, 286-290.	6.2	47
67	Enhancement of biphenyl hydrogenation over gold catalysts supported on Fe-, Ce- and Ti-modified mesoporous silica (HMS). Journal of Catalysis, 2009, 267, 30-39.	6.2	44
68	NO x Storage and High Temperature Soot Oxidation on Ptâ€“Sr/ZrO2 Catalyst. Topics in Catalysis, 2009, 52, 2058-2062.	2.8	7
69	Deep desulphurization of diesel fuels on bifunctional monolithic nanostructured Pt-zeolite catalysts. Catalysis Today, 2009, 144, 235-250.	4.4	39
70	Avoiding segregation during the loading of a catalystâ€“inert powder mixture in a packed micro-bed. Applied Catalysis A: General, 2009, 365, 110-121.	4.3	29
71	Catalyst testing in a multiple-parallel, gasâ€“liquid, powder-packed bed microreactor. Applied Catalysis A: General, 2009, 365, 199-206.	4.3	40
72	TAP reactor study of the deep oxidation of propane using cobalt oxide and gold-containing cobalt oxide catalysts. Applied Catalysis A: General, 2009, 365, 222-230.	4.3	50

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73	Kinetic and deactivation modelling of biphenyl liquid-phase hydrogenation over bimetallic Ptâ€“Pd catalyst. Applied Catalysis B: Environmental, 2009, 88, 213-223.	20.2	27
74	Application of NO storage/release materials based on alkali-earth oxides supported on Al2O3 for high-temperature diesel soot oxidation. Applied Catalysis B: Environmental, 2009, 88, 263-271.	20.2	61
75	Chemical Design of Carbon Coating on the Alumina Support. , 2009, , 119-130.		0
76	Deep Desulfurization of Fossil Fuels by Air in the Absence of a Catalyst. ChemSusChem, 2008, 1, 817-819.	6.8	15
77	Gold supported on mixed oxides for the oxidation of carbon monoxide. Applied Catalysis A: General, 2008, 347, 208-215.	4.3	33
78	Infinite Dilution Binary Diffusion Coefficients of Hydrotreating Compounds in Tetradecane in the Temperature Range from (310 to 475) K. Journal of Chemical & Engineering Data, 2008, 53, 439-443.	1.9	11
79	Development of a Kinetic Model for the Hydrogenolysis of CCl2F2Over 1 wt % Pd/C. Industrial & Engineering Chemistry Research, 2007, 46, 4158-4165.	3.7	3
80	Oxidative thermolysis of Mn(acac)3 on the surface of Î³-alumina support. Thermochimica Acta, 2007, 456, 145-151.	2.7	5
81	On the mechanism of model diesel soot-O2 reaction catalysed by Pt-containing La3+-doped CeO2A TAP study with isotopic O2. Catalysis Today, 2007, 121, 237-245.	4.4	80
82	Cracking of a rapeseed vegetable oil under realistic FCC conditions. Applied Catalysis B: Environmental, 2007, 72, 44-61.	20.2	175
83	Preparation of a monolith-supported Au/TiO2 catalyst active for CO oxidation. Gold Bulletin, 2007, 40, 291-294.	2.7	7
84	Potential rare-earth modified CeO2 catalysts for soot oxidation. Topics in Catalysis, 2007, 42-43, 221-228.	2.8	32
85	Ptâ€“Ce-soot generated from fuel-borne catalysts: soot oxidation mechanism. Topics in Catalysis, 2007, 42-43, 229-236.	2.8	13
86	Mechanism of deactivation of Au/Fe2O3 catalysts under waterâ€“gas shift conditions. Topics in Catalysis, 2007, 44, 209-221.	2.8	22
87	Selective oxidation of CO in the presence of H2, H2O and CO2utilising Au/Î±-Fe2O3catalysts for use in fuel cells. Journal of Materials Chemistry, 2006, 16, 199-208.	6.7	92
88	The Production of Propene Oxide:Â Catalytic Processes and Recent Developments. Industrial & Engineering Chemistry Research, 2006, 45, 3447-3459.	3.7	456
89	XPS characterisation of carbon-coated alumina support. Surface and Interface Analysis, 2006, 38, 917-921.	1.8	40
90	Gold on titania: Effect of preparation method in the liquid phase oxidation. Applied Catalysis A: General, 2006, 311, 185-192.	4.3	126

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91	Role of gold cations in the oxidation of carbon monoxide catalyzed by iron oxide-supported gold. Journal of Catalysis, 2006, 242, 71-81.	6.2	322
92	DRIFTS study of the waterâ€“gas shift reaction over Au/Fe2O3. Journal of Catalysis, 2006, 243, 171-182.	6.2	106
93	Production of clean transportation fuels and lower olefins from Fischer-Tropsch Synthesis waxes under fluid catalytic cracking conditions. Applied Catalysis B: Environmental, 2006, 63, 277-295.	20.2	70
94	Scaling down trickle bed reactors. Catalysis Today, 2005, 106, 227-232.	4.4	43
95	In situ visible microscopic study of molten Cs2SO4Â·V2O5â€“soot system: Physical interaction, oxidation rate, and data evaluation. Applied Catalysis B: Environmental, 2005, 60, 233-243.	20.2	33
96	Are Fischerâ€“Tropsch waxes good feedstocks for fluid catalytic cracking units?. Catalysis Today, 2005, 106, 288-292.	4.4	49
97	Cracking behaviour of aromatic- and organic sulfur compounds under realistic FCC conditions in a microriser reactor. Studies in Surface Science and Catalysis, 2004, 149, 217-232.	1.5	0
98	The role of NO2 and O2 in the accelerated combustion of soot in diesel exhaust gases. Applied Catalysis B: Environmental, 2004, 50, 185-194.	20.2	278
99	CeO2 catalysed soot oxidation. Applied Catalysis B: Environmental, 2004, 51, 9-19.	20.2	209
100	An Optimal Usage of NOxin a Combined Pt/Ceramic Foam and a Wall-Flow Monolith Filter for an Effective NOx-Assisted Soot Oxidation. Topics in Catalysis, 2004, 30/31, 305-308.	2.8	12
101	Increasing the low propene epoxidation product yield of gold/titania-based catalysts. Applied Catalysis A: General, 2004, 270, 49-56.	4.3	55
102	An optimal NOx assisted abatement of diesel soot in an advanced catalytic filter design. Applied Catalysis B: Environmental, 2003, 42, 35-45.	20.2	93
103	The Choice of Instrument (ELPI and/or SMPS) for Diesel Soot Particulate Measurements. , 2003, , .		13
104	XPS and MÃ¶ssbauer Characterization of Au/TiO2Propene Epoxidation Catalysts. Journal of Physical Chemistry B, 2002, 106, 9853-9862.	2.6	187
105	On the generation of aerosol for diesel particulate filtration studies. Separation and Purification Technology, 2002, 27, 195-209.	7.9	27
106	The influence of NOx on soot oxidation rate: molten salt versus platinum. Applied Catalysis B: Environmental, 2002, 35, 159-166.	20.2	89
107	Direct gas-phase epoxidation of propene over bimetallic Au catalysts. Catalysis Today, 2002, 72, 59-62.	4.4	44
108	Synergy effects of ZSM-5 addition in fluid catalytic cracking of hydrotreated flashed distillate. Applied Catalysis A: General, 2002, 223, 103-119.	4.3	31

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109	Science and technology of catalytic diesel particulate filters. Catalysis Reviews - Science and Engineering, 2001, 43, 489-564.	12.9	496
110	Prediction of the Performance of Coked and Regenerated Fluid Catalytic Cracking Catalyst Mixtures. Opportunities for Process Flexibility. Industrial & Engineering Chemistry Research, 2001, 40, 1602-1607.	3.7	7
111	Deactivation of palladium on activated carbon in the selective hydrogenolysis of CCl2F2 (CFC-12) into CH2F2 (HFC-32). Applied Catalysis A: General, 2001, 212, 223-238.	4.3	14
112	ROTACAT: A Rotating Device Containing a Designed Catalyst for Highly Selective Hydroformylation. Advanced Synthesis and Catalysis, 2001, 343, 201-206.	4.3	27
113	Stability and Selectivity of Au/TiO2 and Au/TiO2/SiO2 Catalysts in Propene Epoxidation: An in Situ FT-IR Study. Journal of Catalysis, 2001, 201, 128-137.	6.2	244
114	Prediction of the Performance of Coked and Regenerated FCC Catalyst Mixtures. Studies in Surface Science and Catalysis, 2001, 139, 197-204.	1.5	3
115	Development of a palladium on activated carbon for a conceptual process in the selective hydrogenolysis of CCl2F2 (CFC-12) into CH2F2 (HFC-32). Catalysis Today, 2000, 55, 125-137.	4.4	34
116	Influence of Nox on soot combustion with supported molten salt catalysts. Reaction Kinetics and Catalysis Letters, 1999, 67, 3-7.	0.6	7
117	Direct Epoxidation of Propene Using Gold Dispersed on TS-1 and Other Titanium-Containing Supports. Industrial & Engineering Chemistry Research, 1999, 38, 884-891.	3.7	273
118	Catalyst deactivation in the selective hydrogenolysis of CCl2F2 into CH2F2. Studies in Surface Science and Catalysis, 1999, 126, 349-356.	1.5	1
119	Comparison of the Performance of Activated Carbon-Supported Noble Metal Catalysts in the Hydrogenolysis of CCl2F2. Journal of Catalysis, 1998, 177, 29-39.	6.2	117
120	Selection of activated carbon for the selective hydrogenolysis of CCl2F2 (CFC-12) into CH2F2 (HFC-32) over palladium-supported catalysts. Applied Catalysis A: General, 1998, 173, 161-173.	4.3	56
121	Kinetics of the oxidation of diesel soot. Fuel, 1997, 76, 1129-1136.	6.4	258
122	Feasibility study towards a Cu/K/Mo/(Cl) soot oxidation catalyst for application in diesel exhaust gases. Applied Catalysis B: Environmental, 1997, 11, 365-382.	20.2	50
123	Catalysts for the oxidation of soot from diesel exhaust gases II. Contact between soot and catalyst under practical conditions. Applied Catalysis B: Environmental, 1997, 12, 21-31.	20.2	219
124	Diesel particulate emission control. Fuel Processing Technology, 1996, 47, 1-69.	7.2	326
125	Metal oxides as catalysts for the oxidation of soot. The Chemical Engineering Journal and the Biochemical Engineering Journal, 1996, 64, 295-302.	0.1	38
126	The effects of heat and mass transfer in thermogravimetrical analysis. A case study towards the catalytic oxidation of soot. Thermochimica Acta, 1996, 287, 261-278.	2.7	87

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127	Mechanistic study of the selective hydrogenolysis of CCl₂F₂ (CFCâ€12) into CH₂F₂ (HFCâ€32) over palladium on activated carbon. Recueil Des Travaux Chimiques Des Pays-Bas, 1996, 115, 505-510.	0.0	26
128	Soot oxidation catalyzed by a Cu/K/Mo/Cl catalyst: evaluation of the chemistry and performance of the catalyst. Applied Catalysis B: Environmental, 1995, 6, 339-352.	20.2	131
129	Catalytic oxidation of diesel soot: Catalyst development. Studies in Surface Science and Catalysis, 1995, , 549-561.	1.5	20
130	Hydrogenation of d-fructose and d-fructose/d-glucose mixtures. Carbohydrate Research, 1985, 138, 225-236.	2.3	72
131	Combined action of an enzyme and a metal catalyst on the conversion of d-glucose/d-fructose mixtures into d-mannitol. Carbohydrate Research, 1985, 138, 237-245.	2.3	44
132	Combined action of enzyme and metal catalyst, applied to the preparation of D-mannitol. Journal of the Chemical Society Chemical Communications, 1980, , 930.	2.0	63
133	An Optimal Usage of Nox in a Combined Pt/Ceramic Foam and a Wall-Flow Monolith Filter for an Effective Nox-Assisted Diesel Soot Oxidation. , 0, , .		11