Reinhard Schomcker

List of Publications by Citations

262 papers	7,923 citations	46 h-index	77 g-index
269 ext. papers	8,858 ext. citations	5.2 avg, IF	6.09 L-index

#	Paper	IF	Citations
262	Diacetylene Functionalized Covalent Organic Framework (COF) for Photocatalytic Hydrogen Generation. *Journal of the American Chemical Society*, **2018**, 140, 1423-1427	16.4	410
261	Dilute lamellar and L3 phases in the binary water–C12E5 system. *Journal of the Chemical Society, Faraday Transactions*, **1990**, 86, 2253-2261		384
260	Microemulsions in Technical Processes. *Chemical Reviews*, **1995**, 95, 849-864	68.1	371
259	CO formation/selectivity for steam reforming of methanol with a commercial CuO/ZnO/Al2O3 catalyst. *Applied Catalysis A: General*, **2004**, 259, 83-94	5.1	222
258	A Critical Assessment of Li/MgO-Based Catalysts for the Oxidative Coupling of Methane. *Catalysis Reviews - Science and Engineering*, **2011**, 53, 424-514	12.6	174
257	Fast tuning of covalent triazine frameworks for photocatalytic hydrogen evolution. *Chemical Communications*, **2017**, 53, 5854-5857	5.8	162
256	Steam reforming of methanol over copper-containing catalysts: Influence of support material on microkinetics. *Journal of Catalysis*, **2007**, 246, 177-192	7.3	139
255	Partial oxidation of ethanol on vanadia catalysts on supporting oxides with different redox properties compared to propane. *Journal of Catalysis*, **2012**, 296, 120-131	7.3	121
254	Thermoregulated Liquid/Liquid Catalyst Separation and Recycling. *Advanced Synthesis and Catalysis*, **2006**, 348, 1485-1495	5.6	117
253	Steam reforming of methanol over Cu/ZrO/CeO catalysts: a kinetic study. *Journal of Catalysis*, **2005**, 230, 464-475	7.3	117
252	Oxidative Dehydrogenation of Ethane over Multiwalled Carbon Nanotubes. *ChemCatChem*, **2010**, 2, 644-648	5.2	113
251	An integrated approach to Deacon chemistry on RuO2-based catalysts. *Journal of Catalysis*, **2012**, 285, 273-284	7.3	104
250	Analyses of polysaccharide fouling mechanisms during crossflow membrane filtration. *Journal of Membrane Science*, **2008**, 308, 152-161	9.6	100
249	Nanostructured manganese oxides as highly active water oxidation catalysts: a boost from manganese precursor chemistry. *ChemSusChem*, **2014**, 7, 2202-11	8.3	96
248	Liquid–Liquid Phase Equilibrium in Glycerol–Methanol–Methyl Oleate and Glycerol–Monoolein–Methyl Oleate Ternary Systems. *Industrial & Engineering Chemistry Research*, **2006**, 45, 3693-3696	3.9	96
247	Oxidative coupling of methane: A complex surface/gas phase mechanism with strong impact on the reaction engineering. *Catalysis Today*, **2014**, 228, 212-218	5.3	93
246	Oxidative dehydrogenation of propane over low-loaded vanadia catalysts: Impact of the support material on kinetics and selectivity. *Journal of Molecular Catalysis A*, **2008**, 289, 28-37		92

245	Alumina coated nickel nanoparticles as a highly active catalyst for dry reforming of methane. *Applied Catalysis B: Environmental*, **2015**, 179, 122-127	21.8	90
244	Mesoporous carbon nitride-tungsten oxide composites for enhanced photocatalytic hydrogen evolution. *ChemSusChem*, **2015**, 8, 1404-10	8.3	88
243	Donor–Acceptor-Type Heptazine-Based Polymer Networks for Photocatalytic Hydrogen Evolution. *Energy Technology*, **2016**, 4, 744-750	3.5	85
242	Anomalous reactivity of supported V2O5 nanoparticles for propane oxidative dehydrogenation: influence of the vanadium oxide precursor. *Dalton Transactions*, **2013**, 42, 12644-53	4.3	81
241	Lipase-catalysed ester synthesis in oil-continuous microemulsions. *BBA - Proteins and Proteomics*, **1987**, 912, 278-282		80
240	Solid-State Ion-Exchanged Cu/Mordenite Catalysts for the Direct Conversion of Methane to Methanol. *ACS Catalysis*, **2017**, 7, 1403-1412	13.1	77
239	Hydroformylation of 1-dodecene using Rh-TPPTS in a microemulsion. *Applied Catalysis A: General*, **2002**, 225, 239-249	5.1	76
238	Investigation of the surface reaction network of the oxidative coupling of methane over Na2WO4/Mn/SiO2 catalyst by temperature programmed and dynamic experiments. *Journal of Catalysis*, **2016**, 341, 91-103	7.3	74
237	In situ surface coverage analysis of RuO2-catalysed HCl oxidation reveals the entropic origin of compensation in heterogeneous catalysis. *Nature Chemistry*, **2012**, 4, 739-45	17.6	73
236	Catalytic Membrane Reactors for Partial Oxidation Using Perovskite Hollow Fiber Membranes and for Partial Hydrogenation Using a Catalytic Membrane Contactor. *Industrial & Engineering Chemistry Research*, **2007**, 46, 2286-2294	3.9	73
235	Hydroformylation of 1-Dodecene with Water-Soluble Rhodium Catalysts with Bidentate Ligands in Multiphase Systems. *ChemCatChem*, **2013**, 5, 1854-1862	5.2	70
234	Hydrogen Evolution Reaction in a Large-Scale Reactor using a Carbon Nitride Photocatalyst under Natural Sunlight Irradiation. *Energy Technology*, **2015**, 3, 1014-1017	3.5	65
233	On the nanoparticle synthesis in microemulsions: detailed characterization of an applied reaction mixture. *Colloids and Surfaces A: Physicochemical and Engineering Aspects*, **2000**, 163, 3-15	5.1	64
232	Interaction of enzymes with surfactants in aqueous solution and in water-in-oil microemulsions. *Journal of the Chemical Society Faraday Transactions I*, **1988**, 84, 4203		63
231	Investigation of the role of the Na2WO4/Mn/SiO2 catalyst composition in the oxidative coupling of methane by chemical looping experiments. *Journal of Catalysis*, **2018**, 360, 102-117	7.3	60
230	One-Pot Synthesis of Supported, Nanocrystalline Nickel Manganese Oxide for Dry Reforming of Methane. *ACS Catalysis*, **2013**, 3, 224-229	13.1	59
229	Quantification of photocatalytic hydrogen evolution. *Physical Chemistry Chemical Physics*, **2013**, 15, 3466-72	3.6	59
228	High-Surface-Area SBA-15 with Enhanced Mesopore Connectivity by the Addition of Poly(vinyl alcohol). *Chemistry of Materials*, **2011**, 23, 2062-2067	9.6	59

227	What Makes a Good Catalyst for the Deacon Process?. *ACS Catalysis*, **2013**, 3, 1034-1046	13.1	58
226	Fluidized bed processing of sodium tungsten manganese catalysts for the oxidative coupling of methane. *Chemical Engineering Journal*, **2011**, 168, 1352-1359	14.7	58
225	Microemulsion systems for catalytic reactions and processes. *Catalysis Science and Technology*, **2015**, 5, 24-33	5.5	57
224	Support material variation for the MnxOy-Na2WO4/SiO2 catalyst. *Catalysis Today*, **2014**, 228, 5-14	5.3	56
223	Li-doped MgO From Different Preparative Routes for the Oxidative Coupling of Methane. *Topics in Catalysis*, **2011**, 54, 1266-1285	2.3	54
222	Halloysites Stabilized Emulsions for Hydroformylation of Long Chain Olefins. *Advanced Materials Interfaces*, **2017**, 4, 1600435	4.6	52
221	COSMO-RS and UNIFAC in Prediction of Micelle/Water Partition Coefficients. *Industrial & Engineering Chemistry Research*, **2007**, 46, 6501-6509	3.9	50
220	Mass and heat transfer effects on the oxidative dehydrogenation of propane (ODP) over a low loaded VOx/Al2O3 catalyst. *Applied Catalysis A: General*, **2007**, 323, 66-76	5.1	49
219	Stability and activity of alcohol dehydrogenases in W/O-microemulsions: Enantioselective reduction including cofactor regeneration. *Biotechnology and Bioengineering*, **2000**, 70, 638-646	4.9	48
218	Catalysis of a Diels-Alder cycloaddition with differently fabricated molecularly imprinted polymers. *Catalysis Communications*, **2005**, 6, 601-606	3.2	47
217	High performance (VOx)n□TiOx)m/SBA-15 catalysts for the oxidative dehydrogenation of propane. *Catalysis Science and Technology*, **2014**, 4, 786	5.5	46
216	Facile one-pot synthesis of Pt nanoparticles /SBA-15: an active and stable material for catalytic applications. *Energy and Environmental Science*, **2011**, 4, 2020	35.4	46
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213	Techno-Economic Assessment Guidelines for CO2 Utilization. *Frontiers in Energy Research*, **2020**, 8,	3.8	45
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211	Potential of High-Frequency EPR for Investigation of Supported Vanadium Oxide Catalysts. *Journal of Physical Chemistry C*, **2008**, 112, 17664-17671	3.8	43
210	Assessing Early-Stage CO2 utilization Technologies□omparing Apples and Oranges?. *Energy Technology*, **2017**, 5, 850-860	3.5	42

209	Oxidative dehydrogenation of propane on silica (SBA-15) supported vanadia catalysts: A kinetic investigation. *Journal of Molecular Catalysis A*, **2009**, 307, 43-50		42
208	Engineering Aspects of Preparation of Nanocrystalline Particles in Microemulsions. *Journal of Nanoparticle Research*, **1999**, 1, 267-276	2.3	42
207	Pt/TiO2 photocatalysts deposited on commercial support for photocatalytic reduction of CO2. *Journal of Photochemistry and Photobiology A: Chemistry*, **2018**, 366, 72-80	4.7	41
206	Surface Carbon as a Reactive Intermediate in Dry Reforming of Methane to Syngas on a 5% Ni/MnO Catalyst. *ACS Catalysis*, **2018**, 8, 8739-8750	13.1	41
205	Sol□gel method for synthesis of Mn□Na2WO4/SiO2 catalyst for methane oxidative coupling. *Catalysis Today*, **2014**, 236, 12-22	5.3	39
204	Comparison of phase transfer agents in the aqueous biphasic hydroformylation of higher alkenes. *Catalysis Science and Technology*, **2013**, 3, 600-605	5.5	39
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197	Hydroformylation in Microemulsions: Proof of Concept in a Miniplant. *Industrial & Engineering Chemistry Research*, **2016**, 55, 8616-8626	3.9	33
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195	Topology of silica supported vanadium□titanium oxide catalysts for oxidative dehydrogenation of propane. *Catalysis Science and Technology*, **2012**, 2, 1346	5.5	32
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193	A novel technique for preparation of aminated polyimide membranes with microfiltration characteristics. *Journal of Membrane Science*, **2003**, 223, 171-185	9.6	32
192	Specifying Technology Readiness Levels for the Chemical Industry. *Industrial & Engineering Chemistry Research*, **2019**, 58, 6957-6969	3.9	31

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184	Hydroformylation of 7-tetradecene using Rh-TPPTS in a microemulsion. *Applied Catalysis A: General*, **2002**, 236, 173-178	5.1	28
183	Stepwise Methane-to-Methanol Conversion on CuO/SBA-15. *Chemistry - A European Journal*, **2018**, 24, 12592-12599	4.8	28
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181	Experimental investigation of fluidized-bed reactor performance for oxidative coupling of methane. *Journal of Natural Gas Chemistry*, **2012**, 21, 534-543		26
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176	Photocatalytic reduction of CO2 to hydrocarbons by using photodeposited Pt nanoparticles on carbon-doped titania. *Catalysis Today*, **2019**, 328, 8-14	5.3	26
175	The role of lattice oxygen in the oxidative dehydrogenation of ethane on alumina-supported vanadium oxide. *Physical Chemistry Chemical Physics*, **2009**, 11, 6119-24	3.6	25
174	Controlled Formation of Nickel Oxide Nanoparticles on Mesoporous Silica using Molecular Ni4O4 Clusters as Precursors: Enhanced Catalytic Performance for Dry Reforming of Methane. *ChemCatChem*, **2015**, 7, 1280-1284	5.2	24

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172	Characterisation and catalytic testing of VO /Al2O3 catalysts for microstructured reactors. *Catalysis Communications*, **2008**, 9, 229-233	3.2	24
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164	Techno-economic Assessment Framework for the Chemical Industry Based on Technology Readiness Levels. *Industrial & Engineering Chemistry Research*, **2018**, 57, 8502-8517	3.9	23
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160	methylstyrene hydrogenation in a flow-through membrane reactor. *AICHE Journal*, **2006**, 52, 2805-2811	3.6	22
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158	In situ observation of pH change during water splitting in neutral pH conditions: impact of natural convection driven by buoyancy effects. *Energy and Environmental Science*, **2020**, 13, 5104-5116	35.4	22
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149	A new method to synthesize very active and stable supported metal Pt catalysts: thermo-destabilization of microemulsions. *Journal of Materials Chemistry*, **2012**, 22, 11605		19
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141	Reaction kinetics of rhodium catalysed hydrogenations in micellar solutions. *Catalysis Today*, **2003**, 79-80, 401-408	5.3	17
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138	Palladium catalyzed methoxycarbonylation of 1-dodecene in biphasic systems Optimization of catalyst recycling. *Molecular Catalysis*, **2017**, 439, 1-8	3.3	16

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133	Catalytic Reactions in Aqueous Surfactant-Free Multiphase Emulsions. *Industrial & Engineering Chemistry Research*, **2016**, 55, 12765-12775	3.9	16
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114	Particle shape optimization by changing from an isotropic to an anisotropic nanostructure: preparation of highly active and stable supported Pt catalysts in microemulsions. *Nanoscale*, **2013**, 5, 796-805	7.7	13
113	Enantioselective hydrogenation of itaconic acid and its derivates with sol–gel immobilized Rh/BPPM catalysts. *Journal of Molecular Catalysis A*, **2013**, 366, 359-367		13
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111	Brazil's current and future land balances: Is there residual land for bioenergy production?. *Biomass and Bioenergy*, **2015**, 81, 452-461	5.3	12
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