Evgenii Kondratenko

List of Publications by Year
in descending order

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78 papers	5,056 citations	109321 35 h-index	88630 70 g-index
80 all docs	80 docs citations	80 times ranked	5419 citing authors

#	Article	IF	Citations
1	Status and perspectives of CO2 conversion into fuels and chemicals by catalytic, photocatalytic and electrocatalytic processes. Energy and Environmental Science, 2013, 6, 3112.	30.8	1,475
2	Methane conversion into different hydrocarbons or oxygenates: current status and future perspectives in catalyst development and reactor operation. Catalysis Science and Technology, 2017, 7, 366-381.	4.1	200
3	Current status and perspectives in oxidative, non-oxidative and CO₂-mediated dehydrogenation of propane and isobutane over metal oxide catalysts. Chemical Society Reviews, 2021, 50, 473-527.	38.1	166
4	ZrO₂â€Based Alternatives to Conventional Propane Dehydrogenation Catalysts: Active Sites, Design, and Performance. Angewandte Chemie - International Edition, 2015, 54, 15880-15883.	13.8	156
5	Stable low-temperature dry reforming of methane over mesoporous La2O3-ZrO2 supported Ni catalyst. Applied Catalysis B: Environmental, 2012, 113-114, 19-30.	20.2	154
6	Unexpectedly efficient CO2 hydrogenation to higher hydrocarbons over non-doped Fe2O3. Applied Catalysis B: Environmental, 2017, 204, 119-126.	20.2	137
7	Comparative study of propane dehydrogenation over V-, Cr-, and Pt-based catalysts: Time on-stream behavior and origins of deactivation. Journal of Catalysis, 2012, 293, 67-75.	6.2	133
8	Control of coordinatively unsaturated Zr sites in ZrO2 for efficient Câ€"H bond activation. Nature Communications, 2018, 9, 3794.	12.8	133
9	In situ formation of ZnOx species for efficient propane dehydrogenation. Nature, 2021, 599, 234-238.	27.8	133
10	Evolution, achievements, and perspectives of the TAP technique. Catalysis Today, 2007, 121, 160-169.	4.4	130
11	Forty years of temporal analysis of products. Catalysis Science and Technology, 2017, 7, 2416-2439.	4.1	116
12	Influence of the kind of VOx structures in VOx/MCM-41 on activity, selectivity and stability in dehydrogenation of propane and isobutane. Journal of Catalysis, 2017, 352, 256-263.	6.2	98
13	Developing catalytic materials for the oxidative coupling of methane through statistical analysis of literature data. Catalysis Science and Technology, 2015, 5, 1668-1677.	4.1	86
14	ZrO 2 -based unconventional catalysts for non-oxidative propane dehydrogenation: Factors determining catalytic activity. Journal of Catalysis, 2017, 348, 282-290.	6.2	80
15	Controlling the speciation and reactivity of carbon-supported gold nanostructures for catalysed acetylene hydrochlorination. Chemical Science, 2019, 10, 359-369.	7.4	76
16	The effect of phase composition and crystallite size on activity and selectivity of ZrO2 in non-oxidative propane dehydrogenation. Journal of Catalysis, 2019, 371, 313-324.	6.2	74
17	Partial Oxidation of Methane to Syngas Over Î3-Al₂O₃-Supported Rh Nanoparticles: Kinetic and Mechanistic Origins of Size Effect on Selectivity and Activity. ACS Catalysis, 2014, 4, 3136-3144.	11.2	73
18	Synergy effect between Zr and Cr active sites in binary CrZrOx or supported CrOx/LaZrOx: Consequences for catalyst activity, selectivity and durability in non-oxidative propane dehydrogenation. Journal of Catalysis, 2017, 356, 197-205.	6.2	73

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19	Non-oxidative dehydrogenation of propane, n-butane, and isobutane over bulk ZrO₂-based catalysts: effect of dopant on the active site and pathways of product formation. Catalysis Science and Technology, 2017, 7, 4499-4510.	4.1	71
20	Influence of support and kind of VO species on isobutene selectivity and coke deposition in non-oxidative dehydrogenation of isobutane. Journal of Catalysis, 2016, 338, 174-183.	6.2	66
21	Effect of support on selectivity and on-stream stability of surface VOx species in non-oxidative propane dehydrogenation. Catalysis Science and Technology, 2014, 4, 1323.	4.1	62
22	Elucidating the Nature of Active Sites and Fundamentals for their Creation in Zn-Containing ZrO₂â€“Based Catalysts for Nonoxidative Propane Dehydrogenation. ACS Catalysis, 2020, 10, 8933-8949.	11.2	62
23	A meta-analysis of catalytic literature data reveals property-performance correlations for the OCM reaction. Nature Communications, 2019, 10, 441.	12.8	61
24	Effect of VO_{<i>x</i>} Species and Support on Coke Formation and Catalyst Stability in Nonoxidative Propane Dehydrogenation. ChemCatChem, 2015, 7, 1691-1700.	3.7	60
25	Unexpectedly high activity of bare alumina for non-oxidative isobutane dehydrogenation. Chemical Communications, 2016, 52, 12222-12225.	4.1	53
26	Bulk binary ZrO₂-based oxides as highly active alternative-type catalysts for non-oxidative isobutane dehydrogenation. Chemical Communications, 2016, 52, 8164-8167.	4.1	51
27	Revealing property-performance relationships for efficient CO2 hydrogenation to higher hydrocarbons over Fe-based catalysts: Statistical analysis of literature data and its experimental validation. Applied Catalysis B: Environmental, 2021, 282, 119554.	20.2	51
28	Influence of reaction conditions on catalyst composition and selective/non-selective reaction pathways of the ODP reaction over V2O3, VO2 and V2O5 with O2 and N2O. Applied Catalysis A: General, 2007, 319, 98-110.	4.3	50
29	Structureâ€“Activityâ€“Selectivity Relationships in Propane Dehydrogenation over Rh/ZrO₂ Catalysts. ACS Catalysis, 2020, 10, 6377-6388.	11.2	47
30	Porous silicon carbide as a support for Mn/Na/W/SiC catalyst in the oxidative coupling of methane. Applied Catalysis A: General, 2017, 537, 33-39.	4.3	46
31	Unraveling the Origins of the Synergy Effect between ZrO₂ and CrO<i>_x</i> in Supported CrZrO<i>_x</i> for Propene Formation in Nonoxidative Propane Dehydrogenation. ACS Catalysis, 2020, 10, 1575-1590.	11.2	46
32	Dynamics of redox behavior of nano-sized VOx species over Tiâ€“Si-MCM-41 from time-resolved in situ UV/Vis analysis. Journal of Catalysis, 2009, 265, 8-18.	6.2	45
33	The Enhancing Effect of BrÃ¸nsted Acidity of Supported MoO_{<i>x</i>} Species on their Activity and Selectivity in Ethylene/<i>trans</i>â€2â€Butene Metathesis. ChemCatChem, 2014, 6, 1664-1672.	3.7	43
34	Mechanistic origins of the promoting effect of tiny amounts of Rh on the performance of NiOx/Al2O3 in partial oxidation of methane. Journal of Catalysis, 2011, 280, 116-124.	6.2	40
35	Performance descriptors of nanostructured metal catalysts for acetylene hydrochlorination. Nature Nanotechnology, 2022, 17, 606-612.	31.5	39
36	ZnO Nanoparticles Encapsulated in Nitrogen-Doped Carbon Material and Silicalite-1 Composites for Efficient Propane Dehydrogenation. IScience, 2019, 13, 269-276.	4.1	33

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37	Revisiting Activity- and Selectivity-Enhancing Effects of Water in the Oxidative Coupling of Methane over MnO<i>_x</i>-Na₂WO₄/SiO₂and Proving for Other Materials. ACS Catalysis, 2020, 10, 8751-8764.	11.2	33
38	Controlling activity and selectivity of bare ZrO2 in non-oxidative propane dehydrogenation. Applied Catalysis A: General, 2019, 585, 117189.	4.3	32
39	Identifying Performance Descriptors in CO₂ Hydrogenation over Ironâ€Based Catalysts Promoted with Alkali Metals. Angewandte Chemie - International Edition, 2022, 61, .	13.8	32
40	In-Situ UV/vis and Transient Isotopic Analysis of the Role of Oxidizing Agent in the Oxidative Dehydrogenation of Propane over Silica-Supported Vanadia Catalysts. Journal of Physical Chemistry C, 2007, 111, 8594-8602.	3.1	31
41	Selective and stable iso-butene production over highly dispersed VOx species on SiO2 supports via combining oxidative and non-oxidative iso-butane dehydrogenation. Chemical Communications, 2010, 46, 4974.	4.1	30
42	Comparison of oxidizing agents for the oxidative coupling of methane over state-of-the-art catalysts. Applied Catalysis A: General, 2012, 417-418, 145-152.	4.3	29
43	Understanding reaction-induced restructuring of well-defined FexOyCz compositions and its effect on CO2 hydrogenation. Applied Catalysis B: Environmental, 2021, 291, 120121.	20.2	29
44	Tailored Noble Metal Nanoparticles on Î³â€Al₂O₃ for High Temperature CH₄ Conversion to Syngas. ChemCatChem, 2012, 4, 1368-1375.	3.7	27
45	The effect of supported Rh, Ru, Pt or Ir nanoparticles on activity and selectivity of ZrO2-based catalysts in non-oxidative dehydrogenation of propane. Applied Catalysis A: General, 2020, 602, 117731.	4.3	27
46	Effect of Formaldehyde in Selective Catalytic Reduction of NO<i>_x</i> by Ammonia (NH₃-SCR) on a Commercial V₂O₅-WO₃/TiO₂ Catalyst under Model Conditions. Environmental Science & Technology, 2020, 54, 11753-11761.	10.0	26
47	Effect of Support and Promoter on Activity and Selectivity of Gold Nanoparticles in Propanol Synthesis from CO₂, C₂H₄, and H₂. ACS Catalysis, 2016, 6, 3317-3325.	11.2	25
48	Using time-resolved methods to monitor and understand catalytic oxidation reactions. Catalysis Today, 2010, 157, 16-23.	4.4	23
49	The effect of ZrO2 crystallinity in CrZrOx/SiO2 on non-oxidative propane dehydrogenation. Applied Catalysis A: General, 2020, 590, 117350.	4.3	21
50	The effect of supported MoO_Xstructures on the reaction pathways of propene formation in the metathesis of ethylene and 2-butene. Chemical Communications, 2014, 50, 9060-9063.	4.1	20
51	Effects of N₂O and Water on Activity and Selectivity in the Oxidative Coupling of Methane over Mnâ€"Na₂WO₄/SiO₂: Role of Oxygen Species. ACS Catalysis, 2022, 12, 1298-1309.	11.2	20
52	Controlling Reaction-Induced Loss of Active Sites in ZnO_{<i>x</i>}/Silicalite-1 for Durable Nonoxidative Propane Dehydrogenation. ACS Catalysis, 2022, 12, 4608-4617.	11.2	20
53	Investigation of the Enhancing Effect of Solid Cocatalysts on Propene Formation in Ethene/<i>trans</i>-2-Butene Metathesis over MoO_{<i>x</i>}/SiO₂â€"Al₂O₃. ACS Catalysis, 2015, 5, 7437-7445.	11.2	18
54	Metathesis of ethylene and 2-butene over MoOx/Al2O3-SiO2: Effect of MoOx structure on formation of active sites and propene selectivity. Journal of Catalysis, 2018, 360, 135-144.	6.2	16

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55	Understanding trends in methane oxidation to formaldehyde: statistical analysis of literature data and based hereon experiments. Catalysis Science and Technology, 2019, 9, 5111-5121.	4.1	16
56	A Dualâ€Reactor Concept for the Highâ€Yielding Conversion of Methane into Higher Hydrocarbons. ChemCatChem, 2013, 5, 697-700.	3.7	14
57	Revealing fundamentals affecting activity and product selectivity in non-oxidative propane dehydrogenation over bare Al₂O₃. Catalysis Science and Technology, 2021, 11, 1386-1394.	4.1	14
58	Ceriaâ€Supported Gold Nanoparticles as a Superior Catalyst for Nitrous Oxide Production via Ammonia Oxidation. Angewandte Chemie - International Edition, 2022, 61, .	13.8	13
59	Catalytic non-oxidative propane dehydrogenation over promoted Cr-Zr-Ox: Effect of promoter on propene selectivity and stability. Catalysis Communications, 2020, 138, 105956.	3.3	12
60	Oxidative coupling of methane at elevated pressures: reactor concept and its validation. Reaction Chemistry and Engineering, 2018, 3, 151-154.	3.7	11
61	The role of speciation of Ni²⁺ and its interaction with the support for selectivity and stability in the conversion of ethylene to propene. Catalysis Science and Technology, 2019, 9, 3137-3148.	4.1	11
62	TiO₂-Supported catalysts with ZnO and ZrO₂ for non-oxidative dehydrogenation of propane: mechanistic analysis and application potential. Catalysis Science and Technology, 2020, 10, 7046-7055.	4.1	11
63	A chemical titration method for quantification of carbenes in Mo- or W-containing catalysts for metathesis of ethylene with 2-butenes: verification and application potential. Catalysis Science and Technology, 2019, 9, 5660-5667.	4.1	10
64	Effect of hydrogen and supported metal on selectivity and on-stream stability of ZrO2-based catalysts in non-oxidative propane dehydrogenation. Catalysis Communications, 2020, 144, 106068.	3.3	9
65	An Approach Using Oxidative Coupling of Methane for Converting Biogas and Acid Natural Gas into High-Calorific Fuels. Industrial & Engineering Chemistry Research, 2019, 58, 2454-2459.	3.7	8
66	From Mechanistic and Kinetic Understanding of Heterogeneously Catalyzed Reactions to Tuning Catalysts Performance. Topics in Catalysis, 2013, 56, 858-866.	2.8	7
67	Oxide of lanthanoids can catalyse non-oxidative propane dehydrogenation: mechanistic concept and application potential of Eu₂O₃- or Gd₂O₃-based catalysts. Chemical Communications, 2020, 56, 13021-13024.	4.1	6
68	Elucidating the effects of individual components in K_{<i>x</i>}MnO_{<i>y</i>}/SiO₂and water on selectivity enhancement in the oxidative coupling of methane. Catalysis Science and Technology, 2021, 11, 5827-5838.	4.1	6
69	Factors affecting primary and secondary pathways in CO2 hydrogenation to methanol over CuZnIn/MZrOx (La, Ti or Y). Catalysis Today, 2021, , .	4.4	6
70	Enhancing Propene Formation in the Metathesis of Ethylene with 2-Butene at Close to Room Temperature over MoO<i>_x</i>/SiO₂ through Support Promotion with P, Cl, or S. ACS Catalysis, 2021, 11, 14159-14167.	11.2	6
71	Oxide-Supported Carbonates Reveal a Unique Descriptor for Catalytic Performance in the Oxidative Coupling of Methane (OCM). ACS Catalysis, 2022, 12, 9325-9338.	11.2	5
72	Study of reaction network of the ethylene-to-propene reaction by means of isotopically labelled reactants. Journal of Catalysis, 2020, 389, 317-327.	6.2	4

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73	Room-Temperature Metathesis of Ethylene with 2-Butene to Propene Over MoOx-Based Catalysts: Mixed Oxides as Perspective Support Materials. Catalysis Letters, 0, , 1.	2.6	4
74	Nonoxidative Dehydrogenation of Isobutane over MZrO<i>_x</i> (M = La or Y) with Supported Ir, Pt, Rh, or Ru: Effects of Promoters and Supported Metals. Industrial & Engineering Chemistry Research, 2020, 59, 21729-21735.	3.7	2
75	Dynamics of Reactionâ€Induced Changes of Modelâ€Type Iron Oxide Phases in the CO₂â€Fischerâ€Tropschâ€Synthesis. ChemCatChem, 2022, 14, .	3.7	1
76	Ceriaâ€Supported Gold NanoparticlesÂas a Superior Catalyst for Nitrous OxideÂProduction via Ammonia Oxidation. Angewandte Chemie, 0, , .	2.0	0
77	RÃ¼cktitelbild: Ceriaâ€Supported Gold Nanoparticles as a Superior Catalyst for Nitrous Oxide Production via Ammonia Oxidation (Angew. Chem. 19/2022). Angewandte Chemie, 2022, 134, .	2.0	0
78	Bestimmung von Performanceâ€Deskriptoren fÃ¼r die CO ₂ â€Hydrierung an alkalimetallpromotierten Katalysatoren auf Eisenbasis. Angewandte Chemie, 0, , .	2.0	0