

František Kovanda

List of Publications by Year in descending order

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Version: 2024-02-01

60
papers

2,139
citations

236612

25
h-index

233125

45
g-index

61
all docs

61
docs citations

61
times ranked

2129
citing authors

| # | ARTICLE | IF | CITATIONS |
|----|--|------|-----------|
| 1 | Modification of Co-Mn-Al mixed oxide with potassium and its effect on deep oxidation of VOC. <i>Applied Catalysis A: General</i> , 2009, 361, 106-116. | 2.2 | 162 |
| 2 | Mixed oxides obtained from Co and Mn containing layered double hydroxides: Preparation, characterization, and catalytic properties. <i>Journal of Solid State Chemistry</i> , 2006, 179, 812-823. | 1.4 | 116 |
| 3 | Characterization of activated Cu/Mg/Al hydrotalcites and their catalytic activity in toluene combustion. <i>Applied Clay Science</i> , 2001, 18, 71-80. | 2.6 | 106 |
| 4 | Preparation of layered double hydroxides intercalated with organic anions and their application in LDH/poly(butyl methacrylate) nanocomposites. <i>Applied Clay Science</i> , 2010, 48, 260-270. | 2.6 | 99 |
| 5 | Effect of hydrothermal treatment on properties of Ni-Al layered double hydroxides and related mixed oxides. <i>Journal of Solid State Chemistry</i> , 2009, 182, 27-36. | 1.4 | 92 |
| 6 | Effect of potassium in calcined Co-Mn-Al layered double hydroxide on the catalytic decomposition of N ₂ O. <i>Applied Catalysis B: Environmental</i> , 2009, 90, 132-140. | 10.8 | 83 |
| 7 | Crystallization of synthetic hydrotalcite under hydrothermal conditions. <i>Applied Clay Science</i> , 2005, 28, 101-109. | 2.6 | 80 |
| 8 | Catalytic decomposition of nitrous oxide over catalysts prepared from Co/Mg-Mn/Al hydrotalcite-like compounds. <i>Applied Catalysis B: Environmental</i> , 2005, 60, 289-297. | 10.8 | 75 |
| 9 | Effect of Mn/Al ratio in Co-Mn-Al mixed oxide catalysts prepared from hydrotalcite-like precursors on catalytic decomposition of N ₂ O. <i>Catalysis Today</i> , 2007, 119, 233-238. | 2.2 | 73 |
| 10 | Effect of promoters in Co-Mn-Al mixed oxide catalyst on N ₂ O decomposition. <i>Chemical Engineering Journal</i> , 2010, 160, 480-487. | 6.6 | 72 |
| 11 | Thermal behaviour of Ni-Mn layered double hydroxide and characterization of formed oxides. <i>Solid State Sciences</i> , 2003, 5, 1019-1026. | 1.5 | 71 |
| 12 | Effect of precursor synthesis on catalytic activity of Co ₃ O ₄ in N ₂ O decomposition. <i>Catalysis Today</i> , 2015, 257, 18-25. | 2.2 | 71 |
| 13 | Removal of Anions from Solution by Calcined Hydrotalcite and Regeneration of Used Sorbent in Repeated Calcination-Rehydration-Anion Exchange Processes. <i>Collection of Czechoslovak Chemical Communications</i> , 1999, 64, 1517-1528. | 1.0 | 65 |
| 14 | Layered Double Hydroxides with Intercalated Porphyrins as Photofunctional Materials: Subtle Structural Changes Modify Singlet Oxygen Production. <i>Chemistry of Materials</i> , 2007, 19, 3822-3829. | 3.2 | 58 |
| 15 | Sorption of As(V) Species from Aqueous Systems. <i>Water, Air, and Soil Pollution</i> , 2003, 149, 251-267. | 1.1 | 57 |
| 16 | Supported layered double hydroxide-related mixed oxides and their application in the total oxidation of volatile organic compounds. <i>Applied Clay Science</i> , 2011, 53, 305-316. | 2.6 | 54 |
| 17 | Structure-activity relationship in the N ₂ O decomposition over Ni-(Mg)-Al and Ni-(Mg)-Mn mixed oxides prepared from hydrotalcite-like precursors. <i>Journal of Molecular Catalysis A</i> , 2006, 248, 210-219. | 4.8 | 52 |
| 18 | Preparation and characterisation of activated Ni (Mn)/Mg/Al hydrotalcites for combustion catalysis. <i>Catalysis Today</i> , 2002, 76, 43-53. | 2.2 | 51 |

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|----|--|-----|-----------|
| 19 | Electronic nature of potassium promotion effect in Co-Mn-Al mixed oxide on the catalytic decomposition of N ₂ O. <i>Catalysis Communications</i> , 2011, 12, 1055-1058. | 1.6 | 42 |
| 20 | Thermal behaviour of Cu-Mg-Mn and Ni-Mg-Mn layered double hydroxides and characterization of formed oxides. <i>Applied Clay Science</i> , 2005, 28, 121-136. | 2.6 | 36 |
| 21 | Thermal transformations of Cu-Mg (Zn)-Al(Fe) hydrotalcite-like materials into metal oxide systems and their catalytic activity in selective oxidation of ammonia to dinitrogen. <i>Journal of Thermal Analysis and Calorimetry</i> , 2013, 114, 731-747. | 2.0 | 35 |
| 22 | Removal of As(V) species from extremely contaminated mining water. <i>Applied Clay Science</i> , 2005, 28, 31-42. | 2.6 | 33 |
| 23 | Co-Mn-Al mixed oxides on anodized aluminum supports and their use as catalysts in the total oxidation of ethanol. <i>Applied Catalysis A: General</i> , 2013, 464-465, 181-190. | 2.2 | 32 |
| 24 | Thermal behaviour of synthetic pyroaurite-like anionic clay. <i>Journal of Thermal Analysis and Calorimetry</i> , 2003, 71, 727-737. | 2.0 | 31 |
| 25 | Activity of the Ni-Al Mixed Oxides Prepared from Hydrotalcite-Like Precursors in the Oxidative Dehydrogenation of Ethane and Propane. <i>Topics in Catalysis</i> , 2011, 54, 1151-1162. | 1.3 | 28 |
| 26 | Cobalt Oxide Catalysts in the Form of Thin Films Prepared by Magnetron Sputtering on Stainless-Steel Meshes: Performance in Ethanol Oxidation. <i>Catalysts</i> , 2019, 9, 806. | 1.6 | 28 |
| 27 | Intercalation of paracetamol into the hydrotalcite-like host. <i>Journal of Solid State Chemistry</i> , 2011, 184, 3329-3335. | 1.4 | 26 |
| 28 | Preparation of Mg-Al layered double hydroxide/polyamide 6 nanocomposites using Mg-Al- <i>tau</i> rate LDH as nanofiller. <i>Applied Clay Science</i> , 2015, 114, 265-272. | 2.6 | 24 |
| 29 | Catalytic reduction of nitrous oxide with carbon monoxide over calcined Co-Mn-Al hydrotalcite. <i>Catalysis Today</i> , 2008, 137, 385-389. | 2.2 | 22 |
| 30 | Advantages of stainless steel sieves as support for catalytic N ₂ O decomposition over K-doped Co ₃ O ₄ . <i>Catalysis Today</i> , 2015, 257, 2-10. | 2.2 | 22 |
| 31 | Total oxidation of ethanol over layered double hydroxide-related mixed oxide catalysts: Effect of cation composition. <i>Catalysis Today</i> , 2016, 277, 61-67. | 2.2 | 22 |
| 32 | Mg-Al layered double hydroxide intercalated with porphyrin anions: molecular simulations and experiments. <i>Journal of Molecular Modeling</i> , 2010, 16, 223-233. | 0.8 | 20 |
| 33 | High-temperature X-ray powder diffraction as a tool for characterization of smectites, layered double hydroxides, and their intercalates with porphyrins. <i>Applied Clay Science</i> , 2010, 49, 363-371. | 2.6 | 20 |
| 34 | N ₂ O catalytic decomposition and temperature programmed desorption tests on alkali metals promoted Co-Mn-Al mixed oxide. <i>Catalysis Today</i> , 2011, 176, 208-211. | 2.2 | 19 |
| 35 | Preparation of cobalt oxide catalysts on stainless steel wire mesh by combination of magnetron sputtering and electrochemical deposition. <i>Catalysis Today</i> , 2019, 334, 13-23. | 2.2 | 19 |
| 36 | Cobalt Oxides Supported Over Ceria-Zirconia Coated Cordierite Monoliths as Catalysts for Deep Oxidation of Ethanol and N ₂ O Decomposition. <i>Catalysis Letters</i> , 2017, 147, 1379-1391. | 1.4 | 17 |

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|----|--|-----|-----------|
| 37 | Photoactive Self-Standing Films Made of Layered Double Hydroxides with Arranged Porphyrin Molecules. <i>Journal of Physical Chemistry C</i> , 2011, 115, 21700-21706. | 1.5 | 16 |
| 38 | Aluminum wire meshes coated with Co-Mn-Al and Co oxides as catalysts for deep ethanol oxidation. <i>Catalysis Today</i> , 2018, 304, 165-171. | 2.2 | 15 |
| 39 | Structured cobalt oxide catalysts for VOC abatement: the effect of preparation method. <i>Environmental Science and Pollution Research</i> , 2020, 27, 7608-7617. | 2.7 | 15 |
| 40 | Supported mixed oxide catalysts for the total oxidation of volatile organic compounds. <i>Catalysis Today</i> , 2011, 176, 110-115. | 2.2 | 14 |
| 41 | Hydrotalcite-derived Co-containing mixed metal oxide catalysts for methanol incineration. <i>Journal of Thermal Analysis and Calorimetry</i> , 2017, 129, 1301-1311. | 2.0 | 14 |
| 42 | K-Doped Co-Mn-Al Mixed Oxide Catalyst for N_2O Abatement from Nitric Acid Plant Waste Gases: Pilot Plant Studies. <i>Industrial & Engineering Chemistry Research</i> , 2016, 55, 7076-7084. | 1.8 | 14 |
| 43 | Molecular shape selectivity of hydrotalcite in mixed aldol condensations of aldehydes and ketones. <i>Journal of Molecular Catalysis A</i> , 2008, 285, 150-154. | 4.8 | 12 |
| 44 | N_2O catalytic decomposition – effect of pelleting pressure on activity of Co-Mn-Al mixed oxide catalysts. <i>Chemical Papers</i> , 2009, 63, . | 1.0 | 12 |
| 45 | Simulation of N_2O Abatement in Waste Gases by Its Decomposition over a K-Promoted Co-Mn-Al Mixed Oxide Catalyst. <i>Chinese Journal of Catalysis</i> , 2011, 32, 816-820. | 6.9 | 12 |
| 46 | Co-Mn-Al mixed oxides as catalysts for ammonia oxidation to N_2O . <i>Research on Chemical Intermediates</i> , 2016, 42, 2669-2690. | 1.3 | 12 |
| 47 | Cobalt Oxide Catalysts on Commercial Supports for N_2O Decomposition. <i>Chemical Engineering and Technology</i> , 2017, 40, 981-990. | 0.9 | 12 |
| 48 | The nanoscaled metal-organic framework ICR-2 as a carrier of porphyrins for photodynamic therapy. <i>Beilstein Journal of Nanotechnology</i> , 2018, 9, 2960-2967. | 1.5 | 12 |
| 49 | Voltammetric and X-ray diffraction analysis of the early stages of the thermal crystallization of mixed Cu,Mn oxides. <i>Journal of Solid State Electrochemistry</i> , 2004, 8, 252-259. | 1.2 | 11 |
| 50 | Mixed oxides of transition metals as catalysts for total ethanol oxidation. <i>Chemical Papers</i> , 2012, 66, . | 1.0 | 10 |
| 51 | Hydrothermal deposition as a novel method for the preparation of Co-Mn mixed oxide catalysts supported on stainless steel meshes: application to VOC oxidation. <i>Environmental Science and Pollution Research</i> , 2022, 29, 5172-5183. | 2.7 | 10 |
| 52 | Cobalt oxide catalysts supported on CeO_2-TiO_2 for ethanol oxidation and N_2O decomposition. <i>Reaction Kinetics, Mechanisms and Catalysis</i> , 2017, 121, 121-139. | 0.8 | 7 |
| 53 | Rehydration of Calcined Mg-Al Hydrotalcite in Acidified Chloride-Containing Aqueous Solution. <i>Collection of Czechoslovak Chemical Communications</i> , 2007, 72, 1284-1294. | 1.0 | 6 |
| 54 | The Formation of Layered Double Hydroxides on Alumina Surface in Aqueous Solutions Containing Divalent Metal Cations. <i>Clays and Clay Minerals</i> , 2009, 57, 425-432. | 0.6 | 6 |

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|----|---|-----|-----------|
| 55 | Optimization of Cs content in Co-Mn-Al mixed oxide as catalyst for N ₂ O decomposition. Research on Chemical Intermediates, 2015, 41, 9319-9332. | 1.3 | 5 |
| 56 | Application of Calcined Layered Double Hydroxides as Catalysts for Abatement of N ₂ O Emissions. Collection of Czechoslovak Chemical Communications, 2008, 73, 1045-1060. | 1.0 | 4 |
| 57 | Modification of Cobalt Oxide Electrochemically Deposited on Stainless Steel Meshes with Co-Mn Thin Films Prepared by Magnetron Sputtering: Effect of Preparation Method and Application to Ethanol Oxidation. Catalysts, 2021, 11, 1453. | 1.6 | 4 |
| 58 | Thermal Behaviour of Layered Double Hydroxides Studied by Emanation Thermal Analysis. Solid State Phenomena, 2003, 90-91, 475-480. | 0.3 | 1 |
| 59 | Modification of Co-Mn-Al Mixed Oxide with Promoters and Their Effect on Properties and Activity in VOC Total Oxidation. Collection of Czechoslovak Chemical Communications, 2008, 73, 1000-1014. | 1.0 | 1 |
| 60 | Experimental evaluation of a kinetic method for the study of non-catalysed heterogeneous reactions in solid-liquid systems: leaching of apatite by dilute nitric acid. Journal of Chemical Technology and Biotechnology, 1998, 72, 356-364. | 1.6 | 0 |