

# Nicholas R Jaegers

## List of Publications by Year in descending order

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Version: 2024-02-01

52  
papers

1,550  
citations

257101

24  
h-index

329751

37  
g-index

58  
all docs

58  
docs citations

58  
times ranked

1444  
citing authors

| #  | ARTICLE  | IF   | CITATIONS |
|----|--|------|-----------|
| 1  | Palladium/Ferrierite versus Palladium/SSZ-13 Passive NO <sub>x</sub> Adsorbers: Adsorbate-Controlled Location of Atomically Dispersed Palladium(II) in Ferrierite Determines High Activity and Stability**. <i>Angewandte Chemie - International Edition</i> , 2022, 61, .   | 7.2  | 24        |
| 2  | Understanding the Solvation-Dependent Properties of Cyclic Ether Multivalent Electrolytes Using High-Field NMR and Quantum Chemistry. <i>Jacs Au</i> , 2022, 2, 917-932.   | 3.6  | 5         |
| 3  | On the Nature of Extra-Framework Aluminum Species and Improved Catalytic Properties in Steamed Zeolites. <i>Molecules</i> , 2022, 27, 2352.  | 1.7  | 12        |
| 4  | Directing the Rate-Enhancement for Hydronium Ion Catalyzed Dehydration via Organization of Alkanols in Nanoscopic Confinements. <i>Angewandte Chemie</i> , 2021, 133, 2334-2341.   | 1.6  | 4         |
| 5  | Directing the Rate-Enhancement for Hydronium Ion Catalyzed Dehydration via Organization of Alkanols in Nanoscopic Confinements. <i>Angewandte Chemie - International Edition</i> , 2021, 60, 2304-2311.  | 7.2  | 19        |
| 6  | The superior hydrothermal stability of Pd/SSZ-39 in low temperature passive NO <sub>x</sub> adsorption (PNA) and methane combustion. <i>Applied Catalysis B: Environmental</i> , 2021, 280, 119449.  | 10.8 | 56        |
| 7  | Elucidation of Active Sites in Aldol Condensation of Acetone over Single-Facet Dominant Anatase TiO <sub>2</sub> (101) and (001) Catalysts. <i>Jacs Au</i> , 2021, 1, 41-52.   | 3.6  | 26        |
| 8  | Economizing on Precious Metals in Three-Way Catalysts: Thermally Stable and Highly Active Single-Atom Rhodium on Ceria for NO Abatement under Dry and Industrially Relevant Conditions**. <i>Angewandte Chemie - International Edition</i> , 2021, 60, 391-398.  | 7.2  | 51        |
| 9  | Economizing on Precious Metals in Three-Way Catalysts: Thermally Stable and Highly Active Single-Atom Rhodium on Ceria for NO Abatement under Dry and Industrially Relevant Conditions**. <i>Angewandte Chemie</i> , 2021, 133, 395-402.   | 1.6  | 10        |
| 10 | High-Field One-Dimensional and Two-Dimensional <sup>27</sup> Al Magic-Angle Spinning Nuclear Magnetic Resonance Study of $\hat{\Gamma}_1$ , $\hat{\Gamma}'_1$ , and $\hat{\Gamma}^3$ -Al <sub>2</sub> O <sub>3</sub> Dominated Aluminum Oxides: Toward Understanding the Al Sites in $\hat{\Gamma}^3$ -Al <sub>2</sub> O <sub>3</sub> . <i>ACS Omega</i> , 2021, 6, 4090-4099. | 1.6  | 29        |
| 11 | Conversion of ethanol to 1,3-butadiene over Ag-ZrO <sub>2</sub> /SiO <sub>2</sub> catalysts: The role of surface interfaces. <i>Journal of Energy Chemistry</i> , 2021, 54, 7-15.  | 7.1  | 21        |
| 12 | Factors Influencing Preferential Anion Interactions during Solvation of Multivalent Cations in Ethereal Solvents. <i>Journal of Physical Chemistry C</i> , 2021, 125, 6005-6012.   | 1.5  | 17        |
| 13 | Low-temperature (<math>\leq 200^\circ\text{C}</math>) degradation of electronic nicotine delivery system liquids generates toxic aldehydes. <i>Scientific Reports</i> , 2021, 11, 7800.  | 1.6  | 14        |
| 14 | Precise Identification and Characterization of Catalytically Active Sites on the Surface of $\hat{\Gamma}^3$ -Alumina**. <i>Angewandte Chemie - International Edition</i> , 2021, 60, 17522-17530.   | 7.2  | 26        |
| 15 | Precise Identification and Characterization of Catalytically Active Sites on the Surface of $\hat{\Gamma}^3$ -Alumina**. <i>Angewandte Chemie</i> , 2021, 133, 17663-17671.  | 1.6  | 15        |
| 16 | Impact of Hydration on Supported V <sub>2</sub> O <sub>5</sub> /TiO <sub>2</sub> Catalysts as Explored by Magnetic Resonance Spectroscopy. <i>Journal of Physical Chemistry C</i> , 2021, 125, 16766-16775.  | 1.5  | 3         |
| 17 | Elucidating the Cooperative Roles of Water and Lewis Acid-Base Pairs in Cascade C-C Coupling and Self-Deoxygenation Reactions. <i>Jacs Au</i> , 2021, 1, 1471-1487.  | 3.6  | 5         |
| 18 | Structure-Activity Relationships of Hydrothermally Aged Titania-Supported Vanadium-Tungsten Oxide Catalysts for SCR of NO <sub>x</sub> Emissions with NH <sub>3</sub> . <i>ACS Catalysis</i> , 2021, 11, 12096-12111.  | 5.5  | 20        |

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|----|--|-----|-----------|
| 19 | Biomimetic CO oxidation below $\sim 100^\circ\text{C}$ by a nitrate-containing metal-free microporous system. <i>Nature Communications</i> , 2021, 12, 6033.   | 5.8 | 8         |
| 20 | Palladium/Zeolite Low Temperature Passive NO <sub>x</sub> Adsorbers (PNA): Structure-Adsorption Property Relationships for Hydrothermally Aged PNA Materials. <i>Emission Control Science and Technology</i> , 2020, 6, 126-138.   | 0.8 | 38        |
| 21 | Stabilization of Super Electrophilic Pd <sup>2+</sup> Cations in Small-Pore SSZ-13 Zeolite. <i>Journal of Physical Chemistry C</i> , 2020, 124, 309-321.   | 1.5 | 67        |
| 22 | Single-Step Conversion of Ethanol to <i>n</i> -Butene over Ag-ZrO <sub>2</sub> /SiO <sub>2</sub> Catalysts. <i>ACS Catalysis</i> , 2020, 10, 10602-10613.  | 5.5 | 34        |
| 23 | Role of Solvent Rearrangement on Mg <sup>2+</sup> Solvation Structures in Dimethoxyethane Solutions using Multimodal NMR Analysis. <i>Journal of Physical Chemistry Letters</i> , 2020, 11, 6443-6449.   | 2.1 | 27        |
| 24 | Quantification of High-Temperature Transition Al <sub>2</sub> O <sub>3</sub> and Their Phase Transformations**. <i>Angewandte Chemie</i> , 2020, 132, 21903-21911.   | 1.6 | 3         |
| 25 | Quantification of High-Temperature Transition Al <sub>2</sub> O <sub>3</sub> and Their Phase Transformations**. <i>Angewandte Chemie - International Edition</i> , 2020, 59, 21719-21727.  | 7.2 | 28        |
| 26 | Probing Conformational Evolution and Associated Dynamics of Mg(N(SO <sub>2</sub> CF <sub>3</sub> ) <sub>2</sub> ) <sub>2</sub> -Dimethoxyethane Adduct Using Solid-State <sup>19</sup> F and <sup>1</sup> H NMR. <i>Journal of Physical Chemistry C</i> , 2020, 124, 4999-5008.  | 1.5 | 13        |
| 27 | Variable Temperature and Pressure Operando MAS NMR for Catalysis Science and Related Materials. <i>Accounts of Chemical Research</i> , 2020, 53, 611-619.  | 7.6 | 48        |
| 28 | Thermal perturbation of NMR properties in small polar and non-polar molecules. <i>Scientific Reports</i> , 2020, 10, 6097.   | 1.6 | 9         |
| 29 | Intermediate Species in the Crystallization of Sodium Aluminate Hydroxy Hydrates. <i>Journal of Physical Chemistry C</i> , 2020, 124, 12337-12345.   | 1.5 | 10        |
| 30 | High-Temperature and High-Pressure In situ Magic Angle Spinning Nuclear Magnetic Resonance Spectroscopy. <i>Journal of Visualized Experiments</i> , 2020, , .  | 0.2 | 5         |
| 31 | Mechanism by which Tungsten Oxide Promotes the Activity of Supported V <sub>2</sub> O <sub>5</sub> /TiO <sub>2</sub> Catalysts for NO <sub>x</sub> Abatement: Structural Effects Revealed by <sup>51</sup> V MAS NMR Spectroscopy. <i>Angewandte Chemie - International Edition</i> , 2019, 58, 12609-12616.                               | 7.2 | 96        |
| 32 | Mechanism by which Tungsten Oxide Promotes the Activity of Supported V <sub>2</sub> O <sub>5</sub> /TiO <sub>2</sub> Catalysts for NO <sub>x</sub> Abatement: Structural Effects Revealed by <sup>51</sup> V MAS NMR Spectroscopy. <i>Angewandte Chemie</i> , 2019, 131, 12739-12746.  | 1.6 | 45        |
| 33 | Innen-Äußertitelbild: Mechanism by which Tungsten Oxide Promotes the Activity of Supported V <sub>2</sub> O <sub>5</sub> /TiO <sub>2</sub> Catalysts for NO <sub>x</sub> Abatement: Structural Effects Revealed by <sup>51</sup> V MAS NMR Spectroscopy ( <i>Angew. Chem.</i> 36/2019). <i>Angewandte Chemie</i> , 2019, 131, 12847-12847. | 1.6 | 1         |
| 34 | Transformation of Gibbsite to Boehmite in Caustic Aqueous Solution at Hydrothermal Conditions. <i>Crystal Growth and Design</i> , 2019, 19, 5557-5567.   | 1.4 | 19        |
| 35 | Unraveling Gibbsite Transformation Pathways into LiAl-LDH in Concentrated Lithium Hydroxide. <i>Inorganic Chemistry</i> , 2019, 58, 12385-12394.   | 1.9 | 29        |
| 36 | Adsorption and Thermal Decomposition of Electrolytes on Nanometer Magnesium Oxide: An in Situ <sup>13</sup> C MAS NMR Study. <i>ACS Applied Materials &amp; Interfaces</i> , 2019, 11, 38689-38696.  | 4.0 | 19        |

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|----|--|-----|-----------|
| 37 | Genesis and Stability of Hydronium Ions in Zeolite Channels. <i>Journal of the American Chemical Society</i> , 2019, 141, 3444-3455.   | 6.6 | 119       |
| 38 | Catalytic activation of ethylene C-H bonds on uniform d <sup>8</sup> Ir( <sup>i</sup> ) and Ni( <sup>ii</sup> ) cations in zeolites: toward molecular level understanding of ethylene polymerization on heterogeneous catalysts. <i>Catalysis Science and Technology</i> , 2019, 9, 6570-6576. | 2.1 | 20        |
| 39 | Palladium/Beta zeolite passive NO <sub>x</sub> adsorbers (PNA): Clarification of PNA chemistry and the effects of CO and zeolite crystallite size on PNA performance. <i>Applied Catalysis A: General</i> , 2019, 569, 141-148.  | 2.2 | 81        |
| 40 | <sup>25</sup> Mg NMR and computational modeling studies of the solvation structures and molecular dynamics in magnesium based liquid electrolytes. <i>Nano Energy</i> , 2018, 46, 436-446.   | 8.2 | 37        |
| 41 | Rücktitelbild: Achieving Atomic Dispersion of Highly Loaded Transition Metals in Small-Pore Zeolite SSZ-13: High-Capacity and High-Efficiency Low-Temperature CO and Passive NO <sub>x</sub> Adsorbers ( <i>Angew. Chem.</i> 51/2018). <i>Angewandte Chemie</i> , 2018, 130, 17152-17152.      | 1.6 | 1         |
| 42 | Boehmite and Gibbsite Nanoplates for the Synthesis of Advanced Alumina Products. <i>ACS Applied Nano Materials</i> , 2018, 1, 7115-7128.   | 2.4 | 79        |
| 43 | <i>In situ</i> and <i>ex situ</i> NMR for battery research. <i>Journal of Physics Condensed Matter</i> , 2018, 30, 463001.   | 0.7 | 35        |
| 44 | Achieving Atomic Dispersion of Highly Loaded Transition Metals in Small-Pore Zeolite SSZ-13: High-Capacity and High-Efficiency Low-Temperature CO and Passive NO <sub>x</sub> Adsorbers. <i>Angewandte Chemie - International Edition</i> , 2018, 57, 16672-16677.                             | 7.2 | 129       |
| 45 | Achieving Atomic Dispersion of Highly Loaded Transition Metals in Small-Pore Zeolite SSZ-13: High-Capacity and High-Efficiency Low-Temperature CO and Passive NO <sub>x</sub> Adsorbers. <i>Angewandte Chemie</i> , 2018, 130, 16914-16919.  | 1.6 | 34        |
| 46 | In Situ <sup>27</sup> Al NMR Spectroscopy of Aluminate in Sodium Hydroxide Solutions above and below Saturation with Respect to Gibbsite. <i>Inorganic Chemistry</i> , 2018, 57, 11864-11873.  | 1.9 | 33        |
| 47 | Investigation of Silica-Supported Vanadium Oxide Catalysts by High-Field <sup>51</sup> V Magic-Angle Spinning NMR. <i>Journal of Physical Chemistry C</i> , 2017, 121, 6246-6254.  | 1.5 | 39        |
| 48 | Transitions in Al Coordination during Gibbsite Crystallization Using High-Field <sup>27</sup> Al and <sup>23</sup> Na MAS NMR Spectroscopy. <i>Journal of Physical Chemistry C</i> , 2017, 121, 27555-27562.   | 1.5 | 41        |
| 49 | Development and Application of In Situ High-Temperature, High-Pressure Magic Angle Spinning NMR. , 2017, , 1-19.   |     | 5         |
| 50 | Investigating the Surface Structure of <sup>3</sup> Al <sub>2</sub> O <sub>3</sub> Supported WO <sub>x</sub> Catalysts by High Field <sup>27</sup> Al MAS NMR and Electronic Structure Calculations. <i>Journal of Physical Chemistry C</i> , 2016, 120, 23093-23103.                          | 1.5 | 26        |
| 51 | Pd/FER vs Pd/SSZ-13 Passive NO <sub>x</sub> Adsorbers: Adsorbate-controlled Location of Atomically Dispersed Pd(II) in FER Determines High Activity and Stability. <i>Angewandte Chemie</i> , 0, , .   | 1.6 | 2         |
| 52 | Modelling complex molecular interactions in catalytic materials for energy storage and conversion in nuclear magnetic resonance. <i>Frontiers in Catalysis</i> , 0, 2, .   | 1.8 | 1         |