

Joseph Francisco

List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/5010402/publications.pdf>

Version: 2024-02-01

409
papers

12,490
citations

24978

57
h-index

49773

87
g-index

424
all docs

424
docs citations

424
times ranked

9558
citing authors

| # | ARTICLE | IF | CITATIONS |
|----|---|------|-----------|
| 1 | Theoretical studies of atmospheric reaction mechanisms in the troposphere. <i>Chemical Society Reviews</i> , 2012, 41, 6259. | 18.7 | 360 |
| 2 | Water Catalysis of a Radical-Molecule Gas-Phase Reaction. <i>Science</i> , 2007, 315, 497-501. | 6.0 | 299 |
| 3 | Rational Design of Flexible Two-Dimensional MXenes with Multiple Functionalities. <i>Chemical Reviews</i> , 2019, 119, 11980-12031. | 23.0 | 242 |
| 4 | Promising electron mobility and high thermal conductivity in Sc ₂ CT ₂ (T = F, Tj ETQq0 0 0 rgBT / Overlock 10 T | 2.8 | 205 |
| 5 | Kinetics and Mechanisms of Aqueous Ozone Reactions with Bromide, Sulfite, Hydrogen Sulfite, Iodide, and Nitrite Ions. <i>Inorganic Chemistry</i> , 2001, 40, 4436-4442. | 1.9 | 187 |
| 6 | Radical [•] Water Complexes in Earth's Atmosphere. <i>Accounts of Chemical Research</i> , 2000, 33, 825-830. | 7.6 | 178 |
| 7 | The thermal and electrical properties of the promising semiconductor MXene Hf ₂ CO ₂ . <i>Scientific Reports</i> , 2016, 6, 27971. | 1.6 | 178 |
| 8 | Single Iridium Atom Doped Ni ₂ P Catalyst for Optimal Oxygen Evolution. <i>Journal of the American Chemical Society</i> , 2021, 143, 13605-13615. | 6.6 | 162 |
| 9 | Existence of a Hydroperoxy and Water (HO ₂ ·H ₂ O) Radical Complex. <i>Journal of Physical Chemistry A</i> , 1998, 102, 1899-1902. | 1.1 | 155 |
| 10 | In Situ Observation of the pH Gradient near the Gas Diffusion Electrode of CO ₂ Reduction in Alkaline Electrolyte. <i>Journal of the American Chemical Society</i> , 2020, 142, 15438-15444. | 6.6 | 154 |
| 11 | Atomic imaging of the edge structure and growth of a two-dimensional hexagonal ice. <i>Nature</i> , 2020, 577, 60-63. | 13.7 | 149 |
| 12 | Molecular reactions at aqueous interfaces. <i>Nature Reviews Chemistry</i> , 2020, 4, 459-475. | 13.8 | 149 |
| 13 | Stabilization and strengthening effects of functional groups in two-dimensional titanium carbide. <i>Physical Review B</i> , 2016, 94, . | 1.1 | 142 |
| 14 | Intrinsic Structural, Electrical, Thermal, and Mechanical Properties of the Promising Conductor Mo ₂ C MXene. <i>Journal of Physical Chemistry C</i> , 2016, 120, 15082-15088. | 1.5 | 139 |
| 15 | Rational Design of Highly Stable and Active MXene-Based Bifunctional ORR/OER Double-Atom Catalysts. <i>Advanced Materials</i> , 2021, 33, e2102595. | 11.1 | 137 |
| 16 | Distinct ice patterns on solid surfaces with various wettabilities. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2017, 114, 11285-11290. | 3.3 | 132 |
| 17 | Integrating Rh Species with NiFe-Layered Double Hydroxide for Overall Water Splitting. <i>Nano Letters</i> , 2020, 20, 136-144. | 4.5 | 129 |
| 18 | Sulfuric Acid as Autocatalyst in the Formation of Sulfuric Acid. <i>Journal of the American Chemical Society</i> , 2012, 134, 20632-20644. | 6.6 | 126 |

| # | ARTICLE | IF | CITATIONS |
|----|---|-----|-----------|
| 19 | Water effects on atmospheric reactions. <i>International Reviews in Physical Chemistry</i> , 2011, 30, 335-369. | 0.9 | 119 |
| 20 | The <i>trans</i> -HOCO radical: Quartic force fields, vibrational frequencies, and spectroscopic constants. <i>Journal of Chemical Physics</i> , 2011, 135, 134301. | 1.2 | 116 |
| 21 | New Mechanistic Pathways for Criegee "Water Chemistry at the Air/Water Interface. <i>Journal of the American Chemical Society</i> , 2016, 138, 11164-11169. | 6.6 | 111 |
| 22 | HOCO Radical Chemistry. <i>Accounts of Chemical Research</i> , 2010, 43, 1519-1526. | 7.6 | 109 |
| 23 | Quartic force field predictions of the fundamental vibrational frequencies and spectroscopic constants of the cations HOCO ⁺ and DOCO ⁺ . <i>Journal of Chemical Physics</i> , 2012, 136, 234309. | 1.2 | 105 |
| 24 | Experimental Evidence for the Existence of the HO ₂ ·H ₂ O Complex. <i>Journal of Physical Chemistry A</i> , 2000, 104, 6597-6601. | 1.1 | 104 |
| 25 | Atmospheric Significance of Water Clusters and Ozone "Water Complexes. <i>Journal of Physical Chemistry A</i> , 2013, 117, 10381-10396. | 1.1 | 101 |
| 26 | Insight into Chemistry on Cloud/Aerosol Water Surfaces. <i>Accounts of Chemical Research</i> , 2018, 51, 1229-1237. | 7.6 | 96 |
| 27 | Coupled Cluster Theory Determination of the Heats of Formation of Combustion-Related Compounds: $\dot{\text{A}}$ CO, HCO, CO ₂ , HCO ₂ , HOCO, HC(O)OH, and HC(O)OOH. <i>Journal of Physical Chemistry A</i> , 2003, 107, 1604-1617. | 1.1 | 94 |
| 28 | An Investigation of the Factors Influencing Student Performance in Physical Chemistry. <i>Journal of Chemical Education</i> , 2001, 78, 99. | 1.1 | 93 |
| 29 | Near-Barrierless Ammonium Bisulfate Formation via a Loop-Structure Promoted Proton-Transfer Mechanism on the Surface of Water. <i>Journal of the American Chemical Society</i> , 2016, 138, 1816-1819. | 6.6 | 93 |
| 30 | Impact of Water on the OH + HOCl Reaction. <i>Journal of the American Chemical Society</i> , 2011, 133, 3345-3353. | 6.6 | 92 |
| 31 | The Isomerization of Methoxy Radical: Intramolecular Hydrogen Atom Transfer Mediated through Acid Catalysis. <i>Journal of the American Chemical Society</i> , 2011, 133, 2013-2015. | 6.6 | 91 |
| 32 | Effects of a Single Water Molecule on the OH + H ₂ O ₂ Reaction. <i>Journal of Physical Chemistry A</i> , 2012, 116, 5821-5829. | 1.1 | 91 |
| 33 | Interconnection of Reactive Oxygen Species Chemistry across the Interfaces of Atmospheric, Environmental, and Biological Processes. <i>Accounts of Chemical Research</i> , 2015, 48, 575-583. | 7.6 | 90 |
| 34 | Characterizing hydrophobicity of amino acid side chains in a protein environment via measuring contact angle of a water nanodroplet on planar peptide network. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2016, 113, 12946-12951. | 3.3 | 87 |
| 35 | Self-Catalytic Reaction of SO ₃ and NH ₃ To Produce Sulfamic Acid and Its Implication to Atmospheric Particle Formation. <i>Journal of the American Chemical Society</i> , 2018, 140, 11020-11028. | 6.6 | 86 |
| 36 | Effect of Irradiation Sources and Oxygen Concentration on the Photocatalytic Oxidation of 2-Propanol and Acetone Studied by in Situ FTIR. <i>Journal of Physical Chemistry B</i> , 2003, 107, 4537-4544. | 1.2 | 84 |

| # | ARTICLE | IF | CITATIONS |
|----|---|-----|-----------|
| 37 | Multielemental single-atom-thick layers in nanolaminated V ₂ (Sn, A)C(Tj)ETQq1.10.784314rgBT. <i>Sciences of the United States of America</i> , 2020, 117, 820-825. | 3.3 | 84 |
| 38 | Structure, Anharmonic Vibrational Frequencies, and Intensities of NNHNN ⁺ . <i>Journal of Physical Chemistry A</i> , 2015, 119, 11623-11631. | 1.1 | 81 |
| 39 | Surprising Stability of Larger Criegee Intermediates on Aqueous Interfaces. <i>Angewandte Chemie - International Edition</i> , 2017, 56, 7740-7744. | 7.2 | 80 |
| 40 | Gas Phase Hydrolysis of Formaldehyde To Form Methanediol: Impact of Formic Acid Catalysis. <i>Journal of Physical Chemistry A</i> , 2013, 117, 11704-11710. | 1.1 | 73 |
| 41 | Ion-specific ice recrystallization provides a facile approach for the fabrication of porous materials. <i>Nature Communications</i> , 2017, 8, 15154. | 5.8 | 71 |
| 42 | Fundamental Vibrational Frequencies and Spectroscopic Constants of HOCS ⁺ , HSCO ⁺ , and Isotopologues via Quartic Force Fields. <i>Journal of Physical Chemistry A</i> , 2012, 116, 9582-9590. | 1.1 | 70 |
| 43 | Reactivity of Atmospherically Relevant Small Radicals at the Air-Water Interface. <i>Angewandte Chemie - International Edition</i> , 2012, 51, 5413-5417. | 7.2 | 69 |
| 44 | Role of Double Hydrogen Atom Transfer Reactions in Atmospheric Chemistry. <i>Accounts of Chemical Research</i> , 2016, 49, 877-883. | 7.6 | 69 |
| 45 | The OH radical-H ₂ O molecular interaction potential. <i>Journal of Chemical Physics</i> , 2006, 124, 224318. | 1.2 | 67 |
| 46 | Formation of HONO from the NH ₃ -promoted hydrolysis of NO ₂ dimers in the atmosphere. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2018, 115, 7236-7241. | 3.3 | 67 |
| 47 | Bond Dissociation Energies in Second-Row Compounds. <i>Journal of Physical Chemistry A</i> , 2008, 112, 3145-3156. | 1.1 | 66 |
| 48 | Reactivity of Volatile Organic Compounds at the Surface of a Water Droplet. <i>Journal of the American Chemical Society</i> , 2012, 134, 11821-11827. | 6.6 | 65 |
| 49 | Assessing Student Understanding of General Chemistry with Concept Mapping. <i>Journal of Chemical Education</i> , 2002, 79, 248. | 1.1 | 64 |
| 50 | Hydrolysis of Glyoxal in Water-Restricted Environments: Formation of Organic Aerosol Precursors through Formic Acid Catalysis. <i>Journal of Physical Chemistry A</i> , 2014, 118, 4095-4105. | 1.1 | 63 |
| 51 | Mechanistic Study of the Gas-Phase Decomposition of Methyl Formate. <i>Journal of the American Chemical Society</i> , 2003, 125, 10475-10480. | 6.6 | 62 |
| 52 | Vibrational frequencies and spectroscopic constants from quartic force fields for <i>cis</i> -HOCO: The radical and the anion. <i>Journal of Chemical Physics</i> , 2011, 135, 214303. | 1.2 | 62 |
| 53 | Encapsulation kinetics and dynamics of carbon monoxide in clathrate hydrate. <i>Nature Communications</i> , 2014, 5, 4128. | 5.8 | 62 |
| 54 | Kinetics and Mechanism of the Acetylperoxy + HO ₂ Reaction. <i>Journal of Physical Chemistry A</i> , 1999, 103, 365-378. | 1.1 | 60 |

| # | ARTICLE | IF | CITATIONS |
|----|---|-----|-----------|
| 55 | Exploring the OH+CO ⁺ H+CO ₂ potential surface via dissociative photodetachment of (HOCO) ⁺ . Journal of Chemical Physics, 2002, 117, 6478-6488. | 1.2 | 60 |
| 56 | A surface-stabilized ozonide triggers bromide oxidation at the aqueous solution-vapour interface. Nature Communications, 2017, 8, 700. | 5.8 | 59 |
| 57 | Infrared Spectrum and Stability of the H ₂ O ⁺ HO Complex: Experiment and Theory. Journal of Physical Chemistry A, 2010, 114, 1529-1538. | 1.1 | 58 |
| 58 | Spectroscopic signatures of ozone at the air-water interface and photochemistry implications. Proceedings of the National Academy of Sciences of the United States of America, 2014, 111, 11618-11623. | 3.3 | 58 |
| 59 | General-Acid-Catalyzed Reactions of Hypochlorous Acid and Acetyl Hypochlorite with Chlorite Ion. Inorganic Chemistry, 2000, 39, 2614-2620. | 1.9 | 56 |
| 60 | The importance of weak absorption features in promoting tropospheric radical production. Proceedings of the National Academy of Sciences of the United States of America, 2005, 102, 7449-7452. | 3.3 | 56 |
| 61 | Water desalination through rim functionalized carbon nanotubes. Journal of Materials Chemistry A, 2019, 7, 3583-3591. | 5.2 | 56 |
| 62 | Unraveling the mechanism of selective ion transport in hydrophobic subnanometer channels. Proceedings of the National Academy of Sciences of the United States of America, 2015, 112, 10851-10856. | 3.3 | 53 |
| 63 | Reaction of Criegee Intermediate with Nitric Acid at the Air-Water Interface. Journal of the American Chemical Society, 2018, 140, 4913-4921. | 6.6 | 53 |
| 64 | Heats of Formation of the H _{1,2} O _m Sn (m, n = 0-3) Molecules from Electronic Structure Calculations. Journal of Physical Chemistry A, 2009, 113, 11343-11353. | 1.1 | 52 |
| 65 | Interaction of the NH ₂ Radical with the Surface of a Water Droplet. Journal of the American Chemical Society, 2015, 137, 12070-12078. | 6.6 | 52 |
| 66 | Integrating Multiple Teaching Methods into a General Chemistry Classroom. Journal of Chemical Education, 1998, 75, 210. | 1.1 | 51 |
| 67 | Designing flexible 2D transition metal carbides with strain-controllable lithium storage. Proceedings of the National Academy of Sciences of the United States of America, 2017, 114, E11082-E11091. | 3.3 | 51 |
| 68 | Nitric Acid-Amine Chemistry in the Gas Phase and at the Air-Water Interface. Journal of the American Chemical Society, 2018, 140, 6456-6466. | 6.6 | 51 |
| 69 | Existence of a Chlorine Oxide and Water (ClO·H ₂ O) Radical Complex. Journal of the American Chemical Society, 1995, 117, 9917-9918. | 6.6 | 50 |
| 70 | Making Sure That Hydrofluorocarbons Are "Ozone Friendly". Accounts of Chemical Research, 1996, 29, 391-397. | 7.6 | 50 |
| 71 | Photochemistry of oxidized Hg(I) and Hg(II) species suggests missing mercury oxidation in the troposphere. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 30949-30956. | 3.3 | 50 |
| 72 | Cavity Ringdown Spectroscopy of cis-cis HOONO and the HOONO/HONO ₂ Branching Ratio in the Reaction OH + NO ₂ + M. Journal of Physical Chemistry A, 2003, 107, 6974-6985. | 1.1 | 48 |

| # | ARTICLE | IF | CITATIONS |
|----|---|-----|-----------|
| 73 | Hydrolysis of Ketene Catalyzed by Formic Acid: Modification of Reaction Mechanism, Energetics, and Kinetics with Organic Acid Catalysis. <i>Journal of Physical Chemistry A</i> , 2015, 119, 4347-4357. | 1.1 | 48 |
| 74 | Structure and Energetics of Hydrogen Bonded HO $\hat{~}$ HNO ₃ Complexes. <i>Journal of Physical Chemistry A</i> , 1999, 103, 6049-6053. | 1.1 | 47 |
| 75 | Uptake of the HO ₂ radical by water: Molecular dynamics calculations and their implications for atmospheric modeling. <i>Journal of Geophysical Research</i> , 2004, 109, . | 3.3 | 46 |
| 76 | Interaction of SO ₂ with the Surface of a Water Nanodroplet. <i>Journal of the American Chemical Society</i> , 2017, 139, 17168-17174. | 6.6 | 46 |
| 77 | Mechanistic Insights into Fast Charging and Discharging of the Sodium Metal Battery Anode: A Comparison with Lithium. <i>Journal of the American Chemical Society</i> , 2021, 143, 13929-13936. | 6.6 | 46 |
| 78 | The Formation of a Surprisingly Stable HO ₂ $\hat{~}$ H ₂ SO ₄ Complex. <i>Journal of the American Chemical Society</i> , 2001, 123, 10387-10388. | 6.6 | 45 |
| 79 | Photodissociation Mechanisms of Major Mercury(II) Species in the Atmospheric Chemical Cycle of Mercury. <i>Angewandte Chemie - International Edition</i> , 2020, 59, 7605-7610. | 7.2 | 45 |
| 80 | Identifying the Molecular Origin of Global Warming. <i>Journal of Physical Chemistry A</i> , 2009, 113, 12694-12699. | 1.1 | 44 |
| 81 | Spontaneous Formation of One-Dimensional Hydrogen Gas Hydrate in Carbon Nanotubes. <i>Journal of the American Chemical Society</i> , 2014, 136, 10661-10668. | 6.6 | 44 |
| 82 | Pressure dependence and metastable state formation in the photolysis of dichlorine monoxide (Cl ₂ O). <i>Journal of Chemical Physics</i> , 1996, 104, 2857-2868. | 1.2 | 43 |
| 83 | An Investigation of the Value of Using Concept Maps in General Chemistry. <i>Journal of Chemical Education</i> , 2001, 78, 1111. | 1.1 | 43 |
| 84 | The Gas-Phase Decomposition of CF ₃ OH with Water: A Radical-Catalyzed Mechanism. <i>Journal of Physical Chemistry A</i> , 2009, 113, 5333-5337. | 1.1 | 43 |
| 85 | Carboxylic Acid Catalyzed Hydration of Acetaldehyde. <i>Journal of Physical Chemistry A</i> , 2015, 119, 4581-4588. | 1.1 | 43 |
| 86 | TiO ₂ Photocatalytic Degradation of Dichloromethane: An FTIR and Solid-State NMR Study. <i>Journal of Physical Chemistry B</i> , 2004, 108, 5640-5646. | 1.2 | 42 |
| 87 | Communication: Spectroscopic consequences of proton delocalization in OCHCO ⁺ . <i>Journal of Chemical Physics</i> , 2015, 143, 071102. | 1.2 | 42 |
| 88 | Evidence of low-density and high-density liquid phases and isochore end point for water confined to carbon nanotube. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2017, 114, 4066-4071. | 3.3 | 42 |
| 89 | Photochemistry of SO ₂ at the Air-Water Interface: A Source of OH and HOSO Radicals. <i>Journal of the American Chemical Society</i> , 2018, 140, 12341-12344. | 6.6 | 42 |
| 90 | Single Atom-Modified Hybrid Transition Metal Carbides as Efficient Hydrogen Evolution Reaction Catalysts. <i>Advanced Functional Materials</i> , 2021, 31, 2104285. | 7.8 | 42 |

| # | ARTICLE | IF | CITATIONS |
|-----|--|-----|-----------|
| 91 | A spectroscopic case for SPSi detection: The third-row in a single molecule. <i>Journal of Chemical Physics</i> , 2016, 145, 124311. | 1.2 | 41 |
| 92 | Dimethylamine Addition to Formaldehyde Catalyzed by a Single Water Molecule: A Facile Route for Atmospheric Carbinolamine Formation and Potential Promoter of Aerosol Growth. <i>Journal of Physical Chemistry A</i> , 2016, 120, 1358-1368. | 1.1 | 41 |
| 93 | Gas-Phase Generation and Decomposition of a Sulfinylnitrene into the Iminyl Radical OSN. <i>Angewandte Chemie - International Edition</i> , 2016, 55, 1507-1510. | 7.2 | 40 |
| 94 | Gas-Phase Photolysis of Hg(I) Radical Species: A New Atmospheric Mercury Reduction Process. <i>Journal of the American Chemical Society</i> , 2019, 141, 8698-8702. | 6.6 | 40 |
| 95 | Criegee intermediate-hydrogen sulfide chemistry at the air/water interface. <i>Chemical Science</i> , 2017, 8, 5385-5391. | 3.7 | 39 |
| 96 | Parent Thioketene Sulfide H ₂ CCSO: Gas-Phase Generation, Structure, and Bonding Analysis. <i>Chemistry - A European Journal</i> , 2017, 23, 16566-16573. | 1.7 | 39 |
| 97 | A New Mechanism of Acid Rain Generation from HOSO at the Air-Water Interface. <i>Journal of the American Chemical Society</i> , 2019, 141, 16564-16568. | 6.6 | 39 |
| 98 | A gas-to-particle conversion mechanism helps to explain atmospheric particle formation through clustering of iodine oxides. <i>Nature Communications</i> , 2020, 11, 4521. | 5.8 | 39 |
| 99 | Dissociation Pathways of Peroxyacetyl Nitrate (PAN). <i>Journal of Physical Chemistry A</i> , 1999, 103, 11451-11459. | 1.1 | 38 |
| 100 | The gas and solution phase acidities of HNO, HOONO, HONO, and HONO ₂ . <i>International Journal of Mass Spectrometry</i> , 2003, 227, 421-438. | 0.7 | 38 |
| 101 | Controlling states of water droplets on nanostructured surfaces by design. <i>Nanoscale</i> , 2017, 9, 18240-18245. | 2.8 | 38 |
| 102 | Interfaces Select Specific Stereochemical Conformations: The Isomerization of Glyoxal at the Liquid Water Interface. <i>Journal of the American Chemical Society</i> , 2017, 139, 27-30. | 6.6 | 38 |
| 103 | Atmospheric Spectroscopy and Photochemistry at Environmental Water Interfaces. <i>Annual Review of Physical Chemistry</i> , 2019, 70, 45-69. | 4.8 | 38 |
| 104 | Photoinduced Oxidation Reactions at the Air-Water Interface. <i>Journal of the American Chemical Society</i> , 2020, 142, 16140-16155. | 6.6 | 38 |
| 105 | Reaction pathways for gas-phase hydrolysis of formyl compounds HXCO (X = H, F, and Cl). <i>Journal of the American Chemical Society</i> , 1993, 115, 3746-3751. | 6.6 | 37 |
| 106 | Unimolecular Decomposition Pathways of Dimethyl Ether: An ab Initio Study. <i>Journal of Physical Chemistry A</i> , 1998, 102, 236-241. | 1.1 | 36 |
| 107 | Crystal structure and encapsulation dynamics of ice II-structured neon hydrate. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2014, 111, 10456-10461. | 3.3 | 36 |
| 108 | On the Detectability of the HSS, HSO, and HOS Radicals in the Interstellar Medium. <i>Astrophysical Journal</i> , 2017, 835, 243. | 1.6 | 36 |

| # | ARTICLE | IF | CITATIONS |
|-----|---|-----|-----------|
| 109 | Unraveling a New Chemical Mechanism of Missing Sulfate Formation in Aerosol Haze: Gaseous NO_2 with Aqueous $\text{HSO}_3^-/\text{SO}_3^{2-}$. Journal of the American Chemical Society, 2019, 141, 19312-19320. | 6.6 | 36 |
| 110 | High levelab initiostudies on the excited states of HOCO radical. Journal of Chemical Physics, 2000, 113, 7963-7970. | 1.2 | 35 |
| 111 | Ab Initio Study of Hydrogen Migration in 1-Alkylperoxy Radicals. Journal of Physical Chemistry A, 2010, 114, 11492-11505. | 1.1 | 34 |
| 112 | Hydrogen bonding and orientation effects on the accommodation of methylamine at the air-water interface. Journal of Chemical Physics, 2016, 144, 214701. | 1.2 | 34 |
| 113 | Simplest <i>N</i> -Sulfonylamine HNSO_2 . Journal of the American Chemical Society, 2016, 138, 11509-11512. | 6.6 | 34 |
| 114 | Ab Initio Study of the Structure, Binding Energy, and Vibrations of the HOCl-H ₂ O Complex. The Journal of Physical Chemistry, 1995, 99, 1919-1922. | 2.9 | 33 |
| 115 | Water Complexation as a Means of Stabilizing the Metastable HO ₃ Radical. Journal of the American Chemical Society, 1999, 121, 8592-8596. | 6.6 | 33 |
| 116 | Surface Electrochemical Stability and Strain-Tunable Lithium Storage of Highly Flexible 2D Transition Metal Carbides. Advanced Functional Materials, 2018, 28, 1804867. | 7.8 | 33 |
| 117 | Direct observation of 2-dimensional ices on different surfaces near room temperature without confinement. Proceedings of the National Academy of Sciences of the United States of America, 2019, 116, 16723-16728. | 3.3 | 33 |
| 118 | Reactivity Trends within Alkoxy Radical Reactions Responsible for Chain Branching. Journal of the American Chemical Society, 2011, 133, 18208-18219. | 6.6 | 32 |
| 119 | A Computational Study Investigating the Energetics and Kinetics of the $\text{HNCO} + (\text{CH}_3)_2\text{NH}$ Reaction Catalyzed by a Single Water Molecule. Journal of Physical Chemistry A, 2017, 121, 8465-8473. | 1.1 | 32 |
| 120 | Unexpected quenching effect on new particle formation from the atmospheric reaction of methanol with SO_3 . Proceedings of the National Academy of Sciences of the United States of America, 2019, 116, 24966-24971. | 3.3 | 32 |
| 121 | Ground and electronically excited states of methyl hydroperoxide: Comparison with hydrogen peroxide. Journal of Chemical Physics, 2006, 125, 104301. | 1.2 | 31 |
| 122 | Elemental sulfur aerosol-forming mechanism. Proceedings of the National Academy of Sciences of the United States of America, 2017, 114, 864-869. | 3.3 | 31 |
| 123 | Molecular structure, vibrational frequencies, and energetics of the HOCO ⁺ ion. Journal of Chemical Physics, 1997, 107, 9039-9045. | 1.2 | 30 |
| 124 | High levelab initiomolecular orbital theory study of the structure, vibrational spectrum, stability, and low-lying excited states of HOONO. Journal of Chemical Physics, 2000, 113, 7976-7981. | 1.2 | 30 |
| 125 | Accurateab initiostudy of the energetics of phosphorus nitride: Heat of formation, ionization potential, and electron affinity. Journal of Chemical Physics, 2003, 118, 8290-8295. | 1.2 | 30 |
| 126 | Temperature-Dependent Rate Coefficients for the Reaction of CH ₂ OO with Hydrogen Sulfide. Journal of Physical Chemistry A, 2017, 121, 938-945. | 1.1 | 30 |

| # | ARTICLE | IF | CITATIONS |
|-----|---|-----|-----------|
| 127 | Mechanistic Insight into the Reaction of Organic Acids with SO ₃ at the Air–Water Interface. <i>Angewandte Chemie - International Edition</i> , 2019, 58, 8351-8355. | 7.2 | 30 |
| 128 | Two-dimensional semiconducting Lu ₂ CT ₂ (T = F, OH) MXene with low work function and high carrier mobility. <i>Nanoscale</i> , 2020, 12, 3795-3802. | 2.8 | 30 |
| 129 | Structure and Vibrational Spectra of Chlorofluorocarbon Substitutes: An Experimental and ab Initio Study of Fluorinated Ethers CHF ₂ OCF ₃ (E125), CHF ₂ CHF ₂ (E134), and CH ₃ OCF ₃ (E143A). <i>Journal of Physical Chemistry A</i> , 1998, 102, 1854-1864. | 1.1 | 29 |
| 130 | Complexes of Hydroperoxyl Radical with Glyoxal, Methylglyoxal, Methylvinyl Ketone, Acrolein, and Methacrolein: Possible New Sinks for HO ₂ in the Atmosphere?. <i>Journal of Physical Chemistry A</i> , 2003, 107, 2492-2496. | 1.1 | 29 |
| 131 | High-level ab initio studies of the structure, vibrational spectra, and energetics of S ₃ . <i>Journal of Chemical Physics</i> , 2005, 123, 054302. | 1.2 | 29 |
| 132 | Complete active space self-consistent field and multireference configuration interaction studies of the differences between the low-lying excited states of HO ₂ and HO ₂ –H ₂ O. <i>Journal of Chemical Physics</i> , 1999, 110, 9017-9019. | 1.2 | 28 |
| 133 | The atmospheric oxidation of CH ₃ OOH by the OH radical: the effect of water vapor. <i>Physical Chemistry Chemical Physics</i> , 2017, 19, 12331-12342. | 1.3 | 28 |
| 134 | Mechanistic Quantification of Thermodynamic Stability and Mechanical Strength for Two-Dimensional Transition-Metal Carbides. <i>Journal of Physical Chemistry C</i> , 2018, 122, 4710-4722. | 1.5 | 28 |
| 135 | Revealing the Intrinsic Atomic Structure and Chemistry of Amorphous LiO ₂ -Containing Products in Li–O ₂ Batteries Using Cryogenic Electron Microscopy. <i>Journal of the American Chemical Society</i> , 2022, 144, 2129-2136. | 6.6 | 28 |
| 136 | A CASSCF–MRCI study on the low-lying excited states of CH ₃ OCl. <i>Journal of Chemical Physics</i> , 1999, 111, 8384-8388. | 1.2 | 27 |
| 137 | A molecular perspective for global modeling of upper atmospheric NH ₃ from freezing clouds. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2018, 115, 6147-6152. | 3.3 | 27 |
| 138 | Triplet state promoted reaction of SO ₂ with H ₂ O by competition between proton coupled electron transfer (pcet) and hydrogen atom transfer (hat) processes. <i>Physical Chemistry Chemical Physics</i> , 2019, 21, 9779-9784. | 1.3 | 27 |
| 139 | First-Principles Molecular Dynamics Simulations of the Spontaneous Freezing Transition of 2D Water in a Nanoslit. <i>Journal of the American Chemical Society</i> , 2021, 143, 8177-8183. | 6.6 | 27 |
| 140 | High level ab initio molecular orbital study of the structures and vibrational spectra of CHBr ⁺ and CBr ⁺ . <i>Journal of Chemical Physics</i> , 1998, 109, 134-138. | 1.2 | 26 |
| 141 | The Impact of Continuous Instructional Development on Graduate and Undergraduate Students. <i>Journal of Chemical Education</i> , 1999, 76, 114. | 1.1 | 26 |
| 142 | Heteroatom Tuning of Bimolecular Criegee Reactions and Its Implications. <i>Angewandte Chemie - International Edition</i> , 2016, 55, 13432-13435. | 7.2 | 26 |
| 143 | Elucidating the molecular mechanisms of Criegee-amine chemistry in the gas phase and aqueous surface environments. <i>Chemical Science</i> , 2019, 10, 743-751. | 3.7 | 26 |
| 144 | Hydration, Solvation, and Isomerization of Methylglyoxal at the Air/Water Interface: New Mechanistic Pathways. <i>Journal of the American Chemical Society</i> , 2020, 142, 5574-5582. | 6.6 | 26 |

| # | ARTICLE | IF | CITATIONS |
|-----|--|-----|-----------|
| 145 | Structures, Vibrational Spectra, and Relative Energetics of HBrO ₃ Isomers. <i>Journal of Physical Chemistry A</i> , 1998, 102, 2072-2079. | 1.1 | 25 |
| 146 | Anab initiostudy of the competing reaction channels in the reaction of HOCO radicals with NO and O ₂ . <i>Journal of Chemical Physics</i> , 2004, 120, 5073-5080. | 1.2 | 25 |
| 147 | Identifying Cytosine-Specific Isomers via High-Accuracy Single Photon Ionization. <i>Journal of the American Chemical Society</i> , 2016, 138, 16596-16599. | 6.6 | 25 |
| 148 | Ion pair particles at the air-water interface. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2017, 114, 12401-12406. | 3.3 | 25 |
| 149 | Is ALOH the Astrochemical Reservoir Molecule of AIO?: Insights from Excited Electronic States. <i>Astrophysical Journal</i> , 2018, 863, 139. | 1.6 | 25 |
| 150 | Spectroscopic investigation of [Al,N,C,O] refractory molecules. <i>Journal of Chemical Physics</i> , 2019, 151, 244303. | 1.2 | 25 |
| 151 | Water transport through subnanopores in the ultimate size limit: Mechanism from molecular dynamics. <i>Nano Research</i> , 2019, 12, 587-592. | 5.8 | 25 |
| 152 | Turning a Superhydrophilic Surface Weakly Hydrophilic: Topological Wetting States. <i>Journal of the American Chemical Society</i> , 2020, 142, 18491-18502. | 6.6 | 25 |
| 153 | Dissociation dynamics of FC(O)O and ClC(O)O radicals. <i>Chemical Physics</i> , 1988, 127, 73-79. | 0.9 | 24 |
| 154 | Theoretical Study of the Thermal Decomposition Pathways of 2-H Heptafluoropropane. <i>Journal of Physical Chemistry A</i> , 2002, 106, 3106-3113. | 1.1 | 24 |
| 155 | Anab initiostudy of the pathways for the reaction between CH ₃ O ₂ and BrO radicals. <i>Journal of Chemical Physics</i> , 2003, 118, 1779-1793. | 1.2 | 24 |
| 156 | ClClO ₂ Is the Most Stable Isomer of Cl ₂ O ₂ . Accurate Coupled Cluster Energetics and Electronic Spectra of Cl ₂ O ₂ Isomers. <i>Journal of Physical Chemistry A</i> , 2008, 112, 9623-9627. | 1.1 | 24 |
| 157 | Thermodynamic Properties of the Isomers of [HNOS], [HNO ₂ S], and [HNOS ₂] and the Role of the Central Sulfur. <i>Chemistry - A European Journal</i> , 2014, 20, 10231-10235. | 1.7 | 24 |
| 158 | The Role of Catalysis in Alkanediol Decomposition: Implications for General Detection of Alkanediols and Their Formation in the Atmosphere. <i>Journal of Physical Chemistry A</i> , 2015, 119, 9821-9833. | 1.1 | 24 |
| 159 | The Stability of Hydroperoxyalkyl Radicals. <i>Chemistry - A European Journal</i> , 2016, 22, 18092-18100. | 1.7 | 24 |
| 160 | Single-Molecule Catalysis Revealed: Elucidating the Mechanistic Framework for the Formation and Growth of Atmospheric Iodine Oxide Aerosols in Gas-Phase and Aqueous Surface Environments. <i>Journal of the American Chemical Society</i> , 2018, 140, 14704-14716. | 6.6 | 24 |
| 161 | Evidence of the Elusive Gold-Induced Non-classical Hydrogen Bonding in Aqueous Environments. <i>Journal of the American Chemical Society</i> , 2020, 142, 6001-6006. | 6.6 | 24 |
| 162 | Theoretical spectroscopic investigations of HNS _q and HSN _q (q = 0, +1, ∞) in the gas phase. <i>Journal of Chemical Physics</i> , 2014, 140, 244309. | 1.2 | 23 |

| # | ARTICLE | IF | CITATIONS |
|-----|--|-----|-----------|
| 163 | Tuning the Stereoselectivity and Solvation Selectivity at Interfacial and Bulk Environments by Changing Solvent Polarity: Isomerization of Glyoxal in Different Solvent Environments. <i>Journal of the American Chemical Society</i> , 2018, 140, 5535-5543. | 6.6 | 23 |
| 164 | Capture of the Sulfur Monoxide-Hydroxyl Radical Complex. <i>Journal of the American Chemical Society</i> , 2020, 142, 2175-2179. | 6.6 | 23 |
| 165 | The vibrational spectrum of FC(O)O radical: A challenging case for single-reference electron correlation methods. <i>Journal of Chemical Physics</i> , 1995, 103, 6601-6607. | 1.2 | 22 |
| 166 | Should bromoform absorb at wavelengths longer than 300 nm?. <i>Journal of Chemical Physics</i> , 2002, 117, 6103-6107. | 1.2 | 22 |
| 167 | Atmospheric oxidation pathways of propane and its by-products: Acetone, acetaldehyde, and propionaldehyde. <i>Journal of Geophysical Research</i> , 2007, 112, . | 3.3 | 22 |
| 168 | Atmospheric Oxidation Mechanism of Hydroxymethyl Hydroperoxide. <i>Journal of Physical Chemistry A</i> , 2009, 113, 7593-7600. | 1.1 | 22 |
| 169 | Experimental Observation of the 16-Electron Molecules SPN, SNP, and Cyclic PSN. <i>Angewandte Chemie - International Edition</i> , 2012, 51, 3334-3339. | 7.2 | 22 |
| 170 | Rapid sulfuric acid-dimethylamine nucleation enhanced by nitric acid in polluted regions. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2021, 118, . | 3.3 | 22 |
| 171 | A Density Functional Study of the H ₂ O-HOCO Complex. <i>Journal of Physical Chemistry A</i> , 2000, 104, 404-407. | 1.1 | 21 |
| 172 | Protonated nitrous acid (H ₂ ONO ⁺): Molecular structure, vibrational frequencies, and proton affinity. <i>Journal of Chemical Physics</i> , 2001, 115, 2117-2122. | 1.2 | 21 |
| 173 | HOSO ₂ -H ₂ O Radical Complex and Its Possible Effects on the Production of Sulfuric Acid in the Atmosphere. <i>Journal of Physical Chemistry A</i> , 2003, 107, 1216-1221. | 1.1 | 21 |
| 174 | Competition of Charge- versus Radical-Directed Fragmentation of Gas-Phase Protonated Cysteine Sulfinyl Radicals. <i>Journal of the American Chemical Society</i> , 2013, 135, 6226-6233. | 6.6 | 21 |
| 175 | Red-Light-Induced Decomposition of an Organic Peroxy Radical: A New Source of the HO ₂ Radical. <i>Angewandte Chemie - International Edition</i> , 2015, 54, 15711-15714. | 7.2 | 21 |
| 176 | Electronic structures and mechanical properties of Al(111)/ZrB ₂ (0001) heterojunctions from first-principles calculation. <i>Molecular Physics</i> , 2015, 113, 1794-1801. | 0.8 | 21 |
| 177 | Quartic force field-derived vibrational frequencies and spectroscopic constants for the isomeric pair SNO and OSN and isotopologues. <i>Journal of Chemical Physics</i> , 2015, 143, 084308. | 1.2 | 21 |
| 178 | Formation of CO ₂ Hydrates within Single-Walled Carbon Nanotubes at Ambient Pressure: CO ₂ Capture and Selective Separation of a CO ₂ /H ₂ Mixture in Water. <i>Journal of Physical Chemistry C</i> , 2018, 122, 7951-7958. | 1.5 | 21 |
| 179 | Reconciling the Debate on the Existence of Pentazole HN ₅ in the Pentazolate Salt of (N ₅) ₆ (H ₃ O) ₃ (NH ₄) ₄ Cl. <i>Journal of the American Chemical Society</i> , 2019, 141, 2984-2989. | 6.6 | 21 |
| 180 | Theoretical Investigation of Product Channels in the CH ₃ O ₂ + Br Reaction. <i>Journal of Physical Chemistry A</i> , 2006, 110, 3778-3784. | 1.1 | 20 |

| # | ARTICLE | IF | CITATIONS |
|-----|--|-----|-----------|
| 181 | Quantum force molecular dynamics study of the reaction of O atoms with HOCO. Journal of Chemical Physics, 2007, 127, 094302. | 1.2 | 20 |
| 182 | Interaction of ClO Radical with Liquid Water. Journal of the American Chemical Society, 2009, 131, 14778-14785. | 6.6 | 20 |
| 183 | On the role of the simplest S-nitrosothiol, HSNO, in atmospheric and biological processes. Journal of Chemical Physics, 2013, 139, 234304. | 1.2 | 20 |
| 184 | CO Separation from H ₂ via Hydrate Formation in Single-Walled Carbon Nanotubes. Journal of Physical Chemistry Letters, 2016, 7, 4911-4915. | 2.1 | 20 |
| 185 | Room temperature electrofreezing of water yields a missing dense ice phase in the phase diagram. Nature Communications, 2019, 10, 1925. | 5.8 | 20 |
| 186 | Kinetics of the Reaction between Cyclopentylperoxy Radicals and HO ₂ . Journal of Physical Chemistry A, 1997, 101, 5337-5343. | 1.1 | 19 |
| 187 | CASSCF and MRCI studies of the electronic excited states of CH ₂ Cl and CH ₂ Br. Journal of Chemical Physics, 2001, 114, 2879-2882. | 1.2 | 19 |
| 188 | <i>Ab initio</i> structural and spectroscopic study of HPS _x and HSP _x (x = 0,+1,âˆ²1) in the gas phase. Journal of Chemical Physics, 2013, 139, 174313. | 1.2 | 19 |
| 189 | A Singlet Thiophosphoryl Nitrene and Its Interconversion with Thiazyl and Thionitroso Isomers. Journal of the American Chemical Society, 2015, 137, 10942-10945. | 6.6 | 19 |
| 190 | Organic Acid Formation from the Atmospheric Oxidation of Gem Diols: Reaction Mechanism, Energetics, and Rates. Journal of Physical Chemistry A, 2018, 122, 6266-6276. | 1.1 | 19 |
| 191 | Mechanistic study of the photoexcitation, photoconversion, and photodissociation of CS ₂ . Journal of Chemical Physics, 2018, 149, 064304. | 1.2 | 19 |
| 192 | Mechanism for Rapid Conversion of Amines to Ammonium Salts at the Airâ€“Particle Interface. Journal of the American Chemical Society, 2021, 143, 1171-1178. | 6.6 | 19 |
| 193 | High level <i>ab initio</i> molecular orbital study of the structures and vibrational spectra of CH ₂ Br and CH ₂ Br ⁺ . Journal of Chemical Physics, 1999, 110, 817-822. | 1.2 | 18 |
| 194 | An <i>ab initio</i> study of the structures and energetics of CH ₃ OCl and CH ₃ ClO. International Journal of Quantum Chemistry, 1999, 73, 29-35. | 1.0 | 18 |
| 195 | Complete active space self-consistent field and multireference configuration interaction studies of the low-lying excited states of the ClOâ€“H ₂ O radical complex. Journal of Chemical Physics, 2001, 115, 8381-8383. | 1.2 | 18 |
| 196 | Design strategies to minimize the radiative efficiency of global warming molecules. Proceedings of the National Academy of Sciences of the United States of America, 2010, 107, 9049-9054. | 3.3 | 18 |
| 197 | Excited states of OH-(H ₂ O) _n clusters for n = 1â€“4: An <i>ab initio</i> study. Journal of Chemical Physics, 2014, 141, 104315. | 1.2 | 18 |
| 198 | Phenylsulfinyl Radical: Gas-Phase Generation, Photoisomerization, and Oxidation. Journal of the American Chemical Society, 2018, 140, 9972-9978. | 6.6 | 18 |

| # | ARTICLE | IF | CITATIONS |
|-----|---|-----|-----------|
| 199 | Effects of Different Surface Functionalization and Doping on the Electronic Transport Properties of M_xCT_x/M_2CO_2 Heterojunction Devices. <i>Journal of Physical Chemistry C</i> , 2018, 122, 14908-14917. | 1.5 | 18 |
| 200 | Wavelength-Dependent Photolysis of n-Butyraldehyde and i-Butyraldehyde in the 280–330-nm Region. <i>Journal of Physical Chemistry A</i> , 2002, 106, 7755-7763. | 1.1 | 17 |
| 201 | Bimolecular reaction of molecular oxygen with overtone excited HOOH: Implications for recycling HO ₂ in the atmosphere. <i>Physical Chemistry Chemical Physics</i> , 2003, 5, 3183. | 1.3 | 17 |
| 202 | Electronic states, conical intersections, and spin-rovibronic spectroscopy of the nitrogen oxide sulfide radical. <i>Journal of Chemical Physics</i> , 2013, 138, 104318. | 1.2 | 17 |
| 203 | Formation of bilayer clathrate hydrates. <i>Journal of Materials Chemistry A</i> , 2015, 3, 5547-5555. | 5.2 | 17 |
| 204 | Heterocumulene Sulfinyl Radical OCNSO. <i>Angewandte Chemie - International Edition</i> , 2017, 56, 2140-2144. | 7.2 | 17 |
| 205 | Oxygenate-Induced Tuning of Aldehyde-Amine Reactivity and Its Atmospheric Implications. <i>Journal of Physical Chemistry A</i> , 2017, 121, 1022-1031. | 1.1 | 17 |
| 206 | Two-step reaction mechanism reveals new antioxidant capability of cysteine disulfides against hydroxyl radical attack. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2020, 117, 18216-18223. | 3.3 | 17 |
| 207 | The Aqueous Surface as an Efficient Transient Stop for the Reactivity of Gaseous NO ₂ in Liquid Water. <i>Journal of the American Chemical Society</i> , 2020, 142, 20937-20941. | 6.6 | 17 |
| 208 | Computational Prediction of Novel Ice Phases: A Perspective. <i>Journal of Physical Chemistry Letters</i> , 2020, 11, 7449-7461. | 2.1 | 17 |
| 209 | Photosensitization mechanisms at the air-water interface of aqueous aerosols. <i>Chemical Science</i> , 2022, 13, 2624-2631. | 3.7 | 17 |
| 210 | SPECTROSCOPIC CONSTANTS OF THE X ¹ Σ ⁺ AND 1 ³ Σ ⁺ STATES OF AlO. <i>Astrophysical Journal</i> , 2016, 826, 163. | 1.6 | 16 |
| 211 | Hydrogen Sulfide as a Scavenger of Sulfur Atomic Cation. <i>Journal of Physical Chemistry A</i> , 2018, 122, 4983-4987. | 1.1 | 16 |
| 212 | An ultralow-density porous ice with the largest internal cavity identified in the water phase diagram. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2019, 116, 12684-12691. | 3.3 | 16 |
| 213 | Caged Nitric Oxide-Thiyl Radical Pairs. <i>Journal of the American Chemical Society</i> , 2019, 141, 3361-3365. | 6.6 | 16 |
| 214 | Photochemistry and Non-adiabatic Photodynamics of the HOSO Radical. <i>Journal of the American Chemical Society</i> , 2021, 143, 10836-10841. | 6.6 | 16 |
| 215 | Ab Initio Characterization of the Structure, Vibrational, and Energetic Properties of Br- \dot{A} HOCl, Cl- \dot{A} HOBr, and Br- \dot{A} HOBr Anionic Complexes. <i>Journal of Physical Chemistry A</i> , 2001, 105, 494-500. | 1.1 | 15 |
| 216 | Spectroscopic identification and stability of the intermediate in the OH + HONO ₂ reaction. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2008, 105, 12678-12683. | 3.3 | 15 |

| # | ARTICLE | IF | CITATIONS |
|-----|--|-----|-----------|
| 217 | Structures and heats of formation of the neutral and ionic PNO, NOP, and NPO systems from electronic structure calculations. <i>Journal of Chemical Physics</i> , 2008, 128, 164305. | 1.2 | 15 |
| 218 | Theoretical Study of the Reaction of CH ₃ with HOCO Radicals. <i>Journal of Physical Chemistry A</i> , 2009, 113, 3844-3849. | 1.1 | 15 |
| 219 | A Mass Spectrometric Approach for Probing the Stability of Bioorganic Radicals. <i>Angewandte Chemie - International Edition</i> , 2014, 53, 1887-1890. | 7.2 | 15 |
| 220 | The Methylsulfonyloxy Radical, CH ₃ SO ₃ . <i>Angewandte Chemie - International Edition</i> , 2015, 54, 11404-11408. | 7.2 | 15 |
| 221 | The Trifluoromethyl Sulfinyl and Oxathiyl Radicals. <i>Chemistry - A European Journal</i> , 2018, 24, 1505-1508. | 1.7 | 15 |
| 222 | Role of Water on the Rotational Dynamics of the Organic Methylammonium Cation: A First Principles Analysis. <i>Scientific Reports</i> , 2019, 9, 668. | 1.6 | 15 |
| 223 | The influence of iodine on the Antarctic stratospheric ozone hole. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2022, 119, . | 3.3 | 15 |
| 224 | Accurate ab initio spectroscopic and thermodynamic properties of BB _x and HB _x (x=0, +1, ∞). <i>Journal of Chemical Physics</i> , 2001, 115, 7513-7521. | 1.2 | 14 |
| 225 | Protonation of Water Clusters Induced by Hydroperoxy Radical Surface Adsorption. <i>Chemistry - A European Journal</i> , 2011, 17, 5076-5085. | 1.7 | 14 |
| 226 | Accurate theoretical study of PS _q (q = 0,+1,∞) in the gas phase. <i>Journal of Chemical Physics</i> , 2012, 136, 244309. | 1.2 | 14 |
| 227 | Vibrational memory in quantum localized states. <i>Physical Review A</i> , 2016, 93, . | 1.0 | 14 |
| 228 | Quantum Chemical Rovibrational Analysis of the HOSO Radical. <i>Journal of Physical Chemistry A</i> , 2017, 121, 8108-8114. | 1.1 | 14 |
| 229 | Reactions of Criegee Intermediates with Non-Water Greenhouse Gases: Implications for Metal Free Chemical Fixation of Carbon Dioxide. <i>Journal of Physical Chemistry Letters</i> , 2017, 8, 4206-4213. | 2.1 | 14 |
| 230 | Can Urea Be a Seed for Aerosol Particle Formation in Air?. <i>Journal of Physical Chemistry A</i> , 2018, 122, 3261-3269. | 1.1 | 14 |
| 231 | Theoretical Investigation of the Photoexcited NO ₂ +H ₂ O reaction at the Air-Water Interface and Its Atmospheric Implications. <i>Chemistry - A European Journal</i> , 2019, 25, 13899-13904. | 1.7 | 14 |
| 232 | Reactivity of Undissociated Molecular Nitric Acid at the Air-Water Interface. <i>Journal of the American Chemical Society</i> , 2021, 143, 453-462. | 6.6 | 14 |
| 233 | Evaluating the accuracy of density functional methods for ClOO. <i>Journal of Chemical Physics</i> , 1996, 104, 5345-5346. | 1.2 | 13 |
| 234 | Energetics, structure, and rovibrational spectroscopic properties of the sulfurous anions SNO ⁻ and OSN ⁻ . <i>Journal of Chemical Physics</i> , 2015, 143, 184301. | 1.2 | 13 |

| # | ARTICLE | IF | CITATIONS |
|-----|---|-----|-----------|
| 235 | Role of Proton Tunneling and Metal-Free Organocatalysis in the Decomposition of Methanediol: A Theoretical Study. <i>Journal of Physical Chemistry A</i> , 2017, 121, 4318-4325. | 1.1 | 13 |
| 236 | Phase behaviors of deeply supercooled bilayer water unseen in bulk water. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2018, 115, 4839-4844. | 3.3 | 13 |
| 237 | How We Can Rebuild Trust in Science—And Why We Must. <i>Angewandte Chemie - International Edition</i> , 2018, 57, 13696-13697. | 7.2 | 13 |
| 238 | Production of hydrogen peroxide enabled by microdroplets. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2019, 116, 19222-19224. | 3.3 | 13 |
| 239 | Photochemistry of HOSO radical in the gas phase. <i>Journal of Chemical Physics</i> , 2019, 151, 111103. | 1.2 | 13 |
| 240 | Two-Dimensional Carbonitride MXenes as an Efficient Electrocatalyst for Hydrogen Evolution. <i>Journal of Physical Chemistry C</i> , 2021, 125, 4477-4488. | 1.5 | 13 |
| 241 | Density-Functional Study of the Equilibrium Structures, Vibrational Spectra, and Energetics of CH ₃ OBr and CH ₃ BrO. <i>Journal of Physical Chemistry A</i> , 1998, 102, 9970-9974. | 1.1 | 12 |
| 242 | On the Mechanism of the BrO + CH ₂ O Reaction. <i>Journal of Physical Chemistry A</i> , 1999, 103, 8543-8546. | 1.1 | 12 |
| 243 | Side-On versus End-On Bonding of O ₂ to the FSO ₃ Radical: Matrix Isolation and Ab Initio Study of FSO ₅ . <i>Angewandte Chemie - International Edition</i> , 2007, 46, 3754-3757. | 7.2 | 12 |
| 244 | Electronic structure of NSO ⁻ and SNO ⁻ anions: Stability, electron affinity, and spectroscopic properties. <i>Journal of Chemical Physics</i> , 2015, 143, 164301. | 1.2 | 12 |
| 245 | Quantum Chemical Analysis of the CO ⁻ HNN ⁺ Proton-Bound Complex. <i>Journal of Physical Chemistry A</i> , 2016, 120, 7745-7752. | 1.1 | 12 |
| 246 | Binding of the atomic cations hydrogen through argon to water and hydrogen sulfide. <i>Physical Chemistry Chemical Physics</i> , 2018, 20, 25967-25973. | 1.3 | 12 |
| 247 | Anharmonic Frequencies and Spectroscopic Constants of OAlOH and AlOH: Strong Bonding but Unhindered Motion. <i>Journal of Physical Chemistry A</i> , 2020, 124, 8834-8841. | 1.1 | 12 |
| 248 | Neutron Diffraction Study of Significant ³ and ² C-H Bond Shortening in a Fluorinated Pyridinium Saccharinate. <i>Journal of the American Chemical Society</i> , 2021, 143, 5550-5557. | 6.6 | 12 |
| 249 | Two-dimensional monolayer salt nanostructures can spontaneously aggregate rather than dissolve in dilute aqueous solutions. <i>Nature Communications</i> , 2021, 12, 5602. | 5.8 | 12 |
| 250 | Generation and Release of OH Radicals from the Reaction of H ₂ O with O ₂ over Soot. <i>Angewandte Chemie - International Edition</i> , 2022, 61, . | 7.2 | 12 |
| 251 | An improved estimate of the heat of formation of FOCl. <i>Journal of Chemical Physics</i> , 1996, 105, 3338-3339. | 1.2 | 11 |
| 252 | A Density Functional Study of the Equilibrium Structure, Vibrational Spectrum, and Heat of Formation of Br ₂ O ₃ . <i>Journal of Physical Chemistry A</i> , 1998, 102, 6702-6705. | 1.1 | 11 |

| # | ARTICLE | IF | CITATIONS |
|-----|--|-----|-----------|
| 253 | Potential energy surface for the hydroperoxy and water (HO ₂ -H ₂ O) radical complex. <i>Molecular Physics</i> , 2002, 100, 247-253. | 0.8 | 11 |
| 254 | Ab initio and analytical intermolecular potential for ClO-H ₂ O. <i>Journal of Chemical Physics</i> , 2007, 126, 114304. | 1.2 | 11 |
| 255 | Production of singlet oxygen atoms by photodissociation of oxywater. <i>Journal of Chemical Physics</i> , 2009, 130, 084304. | 1.2 | 11 |
| 256 | International Scientific Collaborations: A Key to Scientific Success. <i>Angewandte Chemie - International Edition</i> , 2015, 54, 14984-14985. | 7.2 | 11 |
| 257 | Characterization and reactivity of the weakly bound complexes of the [H, N, S] ⁻ anionic system with astrophysical and biological implications. <i>Journal of Chemical Physics</i> , 2015, 143, 034303. | 1.2 | 11 |
| 258 | Gas-Phase Generation and Decomposition of a Sulfinyl Nitrene into the Iminyl Radical OSN. <i>Angewandte Chemie</i> , 2016, 128, 1529-1532. | 1.6 | 11 |
| 259 | HNS ⁺ and HSN ⁺ cations: Electronic states, spin-rovibronic spectroscopy with planetary and biological implications. <i>Journal of Chemical Physics</i> , 2016, 145, 084307. | 1.2 | 11 |
| 260 | Full-Dimensional Theory of Pair-Correlated HNCO Photofragmentation. <i>Journal of Physical Chemistry Letters</i> , 2017, 8, 2420-2424. | 2.1 | 11 |
| 261 | Impacts of cloud water droplets on the OH production rate from peroxide photolysis. <i>Physical Chemistry Chemical Physics</i> , 2017, 19, 31621-31627. | 1.3 | 11 |
| 262 | A possible unaccounted source of atmospheric sulfate formation: amine-promoted hydrolysis and non-radical oxidation of sulfur dioxide. <i>Chemical Science</i> , 2020, 11, 2093-2102. | 3.7 | 11 |
| 263 | A coupled-cluster study of the HOBr ⁺ HBrO transition state. <i>Journal of Chemical Physics</i> , 1999, 111, 5780-5782. | 1.2 | 10 |
| 264 | Low-lying excited states of HO[₂]-HONO, HO[₂]-HONO[₂], and HO[₂]-HO[₂ NO[₂] complexes. <i>Journal of Chemical Physics</i> , 2001, 114, 211. | 1.2 | 10 |
| 265 | Excited states and photodissociation of hydroxymethyl hydroperoxide. <i>Journal of Chemical Physics</i> , 2008, 128, 174304. | 1.2 | 10 |
| 266 | How Does the Central Atom Substitution Impact the Properties of a Criegee Intermediate? Insights from Multireference Calculations. <i>Journal of the American Chemical Society</i> , 2017, 139, 15446-15449. | 6.6 | 10 |
| 267 | Spectroscopy and Stability of ALOP: A Possible Progenitor of Interstellar Metal. <i>Journal of Physical Chemistry A</i> , 2019, 123, 463-470. | 1.1 | 10 |
| 268 | Adsorption Behaviors and Phase Equilibria for Clathrate Hydrates of Sulfur- and Nitrogen-Containing Small Molecules. <i>Journal of Physical Chemistry C</i> , 2019, 123, 2691-2702. | 1.5 | 10 |
| 269 | The Triplet Hydroxyl Radical Complex of Phosphorus Monoxide. <i>Angewandte Chemie - International Edition</i> , 2020, 59, 21949-21953. | 7.2 | 10 |
| 270 | Photochemistry of HOSO ₂ and SO ₃ and Implications for the Production of Sulfuric Acid. <i>Journal of the American Chemical Society</i> , 2021, 143, 18794-18802. | 6.6 | 10 |

| # | ARTICLE | IF | CITATIONS |
|-----|--|-----|-----------|
| 271 | Internal rotational barriers of ClOOCl. <i>Journal of Chemical Physics</i> , 1995, 103, 8921-8923. | 1.2 | 9 |
| 272 | Reactivity of hydropersulfides toward the hydroxyl radical unraveled: disulfide bond cleavage, hydrogen atom transfer, and proton-coupled electron transfer. <i>Physical Chemistry Chemical Physics</i> , 2018, 20, 4793-4804. | 1.3 | 9 |
| 273 | Photoinduced Sulfur-Nitrogen Bond Rotation and Thermal Nitrogen Inversion in Heterocumulene OSNSO. <i>Journal of the American Chemical Society</i> , 2018, 140, 1231-1234. | 6.6 | 9 |
| 274 | A synergetic stabilization and strengthening strategy for two-dimensional ordered hybrid transition metal carbides. <i>Physical Chemistry Chemical Physics</i> , 2018, 20, 29684-29692. | 1.3 | 9 |
| 275 | Mechanistic Insight into the Reaction of Organic Acids with SO ₃ at the Air-Water Interface. <i>Angewandte Chemie</i> , 2019, 131, 8439-8443. | 1.6 | 9 |
| 276 | Multiple Stable Isoprene-Ozone Complexes Reveal Complex Entrance Channel Dynamics in the Isoprene + Ozone Reaction. <i>Journal of the American Chemical Society</i> , 2020, 142, 10806-10813. | 6.6 | 9 |
| 277 | Tight electrostatic regulation of the OH production rate from the photolysis of hydrogen peroxide adsorbed on surfaces. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2021, 118, . | 3.3 | 9 |
| 278 | Mechanistic Study of the Aqueous Reaction of Organic Peroxides with HSO ₃ [•] on the Surface of a Water Droplet. <i>Angewandte Chemie - International Edition</i> , 2021, 60, 20200-20203. | 7.2 | 9 |
| 279 | Low-lying excited states of HOOCl and HOOBr. <i>Journal of Chemical Physics</i> , 2000, 112, 8483-8486. | 1.2 | 8 |
| 280 | Proton Affinity of Peroxyacetic Acid. <i>Journal of Physical Chemistry A</i> , 2004, 108, 2930-2935. | 1.1 | 8 |
| 281 | Sulfur atom exchange in the reaction of SH radicals with S atoms. <i>Journal of Chemical Physics</i> , 2007, 126, 214301. | 1.2 | 8 |
| 282 | On the role of HNS and HSN as light-sensitive NO-donors for delivery in biological media. <i>Journal of Chemical Physics</i> , 2015, 143, 134301. | 1.2 | 8 |
| 283 | Red-Light Initiated Decomposition of $\dot{\text{H}}$ -Hydroxy Methylperoxy Radical in the Presence of Organic and Inorganic Acids: Implications for the HO _x Formation in the Lower Stratosphere. <i>Journal of Physical Chemistry A</i> , 2016, 120, 2677-2683. | 1.1 | 8 |
| 284 | Phonon-mediated stabilization and softening of 2D transition metal carbides: case studies of Ti ₂ CO ₂ and Mo ₂ CO ₂ . <i>Physical Chemistry Chemical Physics</i> , 2018, 20, 14608-14618. | 1.3 | 8 |
| 285 | Unraveling Molecular Mechanism on Dilute Surfactant Solution Controlled Ice Recrystallization. <i>Langmuir</i> , 2020, 36, 1691-1698. | 1.6 | 8 |
| 286 | New Insights into the Stability of Anhydrous 2 <i>H</i> -Imidazolium Fluoride and its High Dissolution Capability toward a Strongly Hydrogen-Bonded Compound. <i>Journal of the American Chemical Society</i> , 2020, 142, 10314-10318. | 6.6 | 8 |
| 287 | HIO _x -IONO ₂ Dynamics at the Air-Water Interface: Revealing the Existence of a Halogen Bond at the Atmospheric Aerosol Surface. <i>Journal of the American Chemical Society</i> , 2020, 142, 12467-12477. | 6.6 | 8 |
| 288 | Heterogeneous Reactions of SO ₃ on Ice: An Overlooked Sink for SO ₃ Depletion. <i>Journal of the American Chemical Society</i> , 2020, 142, 2150-2154. | 6.6 | 8 |

| # | ARTICLE | IF | CITATIONS |
|-----|---|-----|-----------|
| 289 | High-level Ab Initio Studies of the Spectroscopic Properties of Triatomic $[Al, S, O]_x$ ($x = 0, 1$) | 1.6 | 7 |
| 290 | Spectroscopic Characterization of HSO_2^+ and $HOSO^+$ Intermediates Involved in SO_2 Geoengineering. <i>Journal of Physical Chemistry A</i> , 2021, 125, 10615-10621. | 1.1 | 8 |
| 291 | Reaction of SO_3 with $HONO_2$ and Implications for Sulfur Partitioning in the Atmosphere. <i>Journal of the American Chemical Society</i> , 2022, 144, 9172-9177. | 6.6 | 8 |
| 292 | Deprotonation energy of HO_2 : Basis set limit energies. <i>Journal of Chemical Physics</i> , 2001, 115, 6373-6375. | 1.2 | 7 |
| 293 | Coupled cluster study of the energetic and spectroscopic properties of OPO_x ($x=0, +1, \sim 1$). <i>Journal of Chemical Physics</i> , 2002, 117, 3190-3195. | 1.2 | 7 |
| 294 | Theoretical study of the spectroscopically relevant parameters for the detection of HNP_q and HPN_q ($q = 0, +1, \sim 1$) in the gas phase. <i>Journal of Chemical Physics</i> , 2012, 136, 244311. | 1.2 | 7 |
| 295 | Molecularly Tuning the Radicaloid $NH\cdots C$ Hydrogen Bond. <i>Journal of Physical Chemistry A</i> , 2016, 120, 1307-1315. | 1.1 | 7 |
| 296 | Surprising Stability of Larger Criegee Intermediates on Aqueous Interfaces. <i>Angewandte Chemie</i> , 2017, 129, 7848-7852. | 1.6 | 7 |
| 297 | $H-X$ ($X = H, CH_3, CH_2F, CHF_2, CF_3, \text{ and } SiH_3$) Bond Activation by Criegee Intermediates: A Theoretical Perspective. <i>Journal of Physical Chemistry A</i> , 2017, 121, 9421-9428. | 1.1 | 7 |
| 298 | Substituent effects on the spectroscopic properties of Criegee intermediates. <i>Journal of Chemical Physics</i> , 2017, 147, 164303. | 1.2 | 7 |
| 299 | A Possible Progenitor of the Interstellar Sulfide Bond: Rovibrational Characterization of the Hydrogen Disulfide Cation $HSSH^+$. <i>Astrophysical Journal</i> , 2018, 856, 30. | 1.6 | 7 |
| 300 | Photochemistry of OPN: Formation of Cyclic PON and Reversible Combination with Carbon Monoxide. <i>Chemistry - A European Journal</i> , 2018, 24, 14627-14630. | 1.7 | 7 |
| 301 | Spectroscopy and characterization of $AlNX$ ($X = O$ and S): Triatomic circumstellar molecules. <i>Journal of Chemical Physics</i> , 2019, 150, 124306. | 1.2 | 7 |
| 302 | Molecular Interaction and Orientation of $HOCl$ on Aqueous and Ice Surfaces. <i>Journal of the American Chemical Society</i> , 2020, 142, 17329-17333. | 6.6 | 7 |
| 303 | Spectroscopic characterization of two peroxy radicals during the O_2 -oxidation of the methylthio radical. <i>Communications Chemistry</i> , 2022, 5, . | 2.0 | 7 |
| 304 | Solvation and Hydrolysis Reaction of Isocyanic Acid at the Air-Water Interface: A Computational Study. <i>Journal of the American Chemical Society</i> , 2022, 144, 5315-5322. | 6.6 | 7 |
| 305 | Changing the Product State Distribution and Kinetics in Photocatalytic Surface Reactions Using Pulsed Laser Irradiation. <i>Journal of the American Chemical Society</i> , 1998, 120, 8265-8266. | 6.6 | 6 |
| 306 | Post-Hartree-Fock study on $FOCl^+$ and $FCIO^+$. <i>Journal of Chemical Physics</i> , 1998, 108, 659-663. | 1.2 | 6 |

| # | ARTICLE | IF | CITATIONS |
|-----|---|-----|-----------|
| 307 | Heterogeneous Degradation of Carbon Tetrachloride: Breaking the Carbon-Chlorine Bond with Activated Carbon Surfaces. <i>Environmental Science & Technology</i> , 1999, 33, 4102-4106. | 4.6 | 6 |
| 308 | Activation of Dioxygen by Halocarbon Ions. <i>Journal of Physical Chemistry A</i> , 2000, 104, 6804-6808. | 1.1 | 6 |
| 309 | A complete active space self-consistent field multiconfiguration reference configuration interaction study of the potential energy curves of the ground and excited states of CCl. <i>Journal of Chemical Physics</i> , 2001, 114, 2192-2196. | 1.2 | 6 |
| 310 | A group increment scheme for infrared absorption intensities of greenhouse gases. <i>Journal of Molecular Structure</i> , 2012, 1009, 89-95. | 1.8 | 6 |
| 311 | Hydrogen Sulfide Induced Carbon Dioxide Activation by Metal-Free Dual Catalysis. <i>Chemistry - A European Journal</i> , 2016, 22, 4359-4363. | 1.7 | 6 |
| 312 | Toward the laboratory identification of [O,N,S,S] isomers: Implications for biological NO chemistry. <i>Journal of Chemical Physics</i> , 2016, 144, 234316. | 1.2 | 6 |
| 313 | A Coupled Cluster Investigation of SNO Radical Isomers and Their Reactions with Hydrogen Atom: Insight into Structures, Conformers, Barriers, and Energetics. <i>Journal of Physical Chemistry A</i> , 2017, 121, 6652-6659. | 1.1 | 6 |
| 314 | Identification of Key Intermediates during the NO and H ₂ S Crosstalk Signaling Pathways. <i>Journal of Physical Chemistry A</i> , 2018, 122, 2877-2883. | 1.1 | 6 |
| 315 | Electronic and spectroscopic characterizations of SNP isomers. <i>Journal of Chemical Physics</i> , 2018, 148, 054305. | 1.2 | 6 |
| 316 | Two-dimensional dry ices with rich polymorphic and polyamorphic phase behavior. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2018, 115, 10263-10268. | 3.3 | 6 |
| 317 | Molecular oxygen generation from the reaction of water cations with oxygen atoms. <i>Journal of Chemical Physics</i> , 2019, 150, 201103. | 1.2 | 6 |
| 318 | Molecular insights into organic particulate formation. <i>Communications Chemistry</i> , 2019, 2, . | 2.0 | 6 |
| 319 | Microscopic Insight into Water Desalination through Nanoporous Graphene: The Influence of the Dipole Moment. <i>Journal of Physical Chemistry Letters</i> , 2022, 13, 4029-4035. | 2.1 | 6 |
| 320 | Universal Principle for Large-Scale Production of a High-Quality Two-Dimensional Monolayer via Positive Charge-Driven Exfoliation. <i>Journal of Physical Chemistry Letters</i> , 2022, 13, 6597-6603. | 2.1 | 6 |
| 321 | Communication: Theoretical prediction of the structure and spectroscopic properties of the $\text{X}^{\cdot}\text{X}^{\cdot}$ and $\text{A}^{\cdot}\text{A}^{\cdot}$ states of hydroxymethyl peroxy (HOCH ₂ OO) radical. <i>Journal of Chemical Physics</i> , 2013, 138, 021105. | 1.2 | 5 |
| 322 | An <i>ab initio</i> investigation of the ground and low-lying singlet and triplet electronic states of XNO ₂ and XONO (X = Cl, Br, and I). <i>Journal of Chemical Physics</i> , 2014, 140, 044308. | 1.2 | 5 |
| 323 | <i>Ab initio</i> ro-vibronic spectroscopy of the $\hat{\text{I}}^{\cdot}$ PCS radical and $\hat{\text{I}}^{\cdot} + 1\text{PCS}^{\cdot-}$ anion. <i>Journal of Chemical Physics</i> , 2016, 145, 224303. | 1.2 | 5 |
| 324 | Gas-Phase Unimolecular Dissociation Reveals Dominant Base Property of Protonated Homocysteine Sulfinyl Radical Ions. <i>Chemistry - A European Journal</i> , 2016, 22, 934-940. | 1.7 | 5 |

| # | ARTICLE | IF | CITATIONS |
|-----|--|-----|-----------|
| 325 | Heterocumulene Sulfinyl Radical OCNSO. <i>Angewandte Chemie</i> , 2017, 129, 2172-2176. | 1.6 | 5 |
| 326 | Benchmark study of the structural and spectroscopic parameters of the hydroxymethyl peroxy (HOCH ₂ OO) radical and its decomposition reaction to HO ₂ and H ₂ CO. <i>Journal of Chemical Physics</i> , 2017, 146, 144303. | 1.2 | 5 |
| 327 | Toward the laboratory identification of the not-so-simple NS ₂ neutral and anion isomers. <i>Journal of Chemical Physics</i> , 2017, 147, 074303. | 1.2 | 5 |
| 328 | Climate Metrics for C ₁ –C ₄ Hydrofluorocarbons (HFCs). <i>Journal of Physical Chemistry A</i> , 2020, 124, 4793-4800. | 1.1 | 5 |
| 329 | Rapid Allylic 1,6 H-Atom Transfer in an Unsaturated Criegee Intermediate. <i>Journal of the American Chemical Society</i> , 2022, 144, 5945-5955. | 6.6 | 5 |
| 330 | Carbon Atom-Initiated Degradation of Carbon Tetrachloride in the Presence of Molecular Oxygen: A Product and Mechanistic Study. <i>Environmental Science & Technology</i> , 1998, 32, 3200-3206. | 4.6 | 4 |
| 331 | Ab initio study of the electronic spectrum of peroxyacetyl nitrate. <i>Journal of Chemical Physics</i> , 2004, 121, 6298-6301. | 1.2 | 4 |
| 332 | Dimerization and trapping of diazirinyl radicals. <i>Physical Chemistry Chemical Physics</i> , 2004, 6, 756. | 1.3 | 4 |
| 333 | Ab initio study of the structure, bonding, vibrational spectra, and energetics of XBS ⁺ (where X=H, F). <i>Journal of Chemical Physics</i> , 2004, 121, 074303. | 1.2 | 4 |
| 334 | Red-Light-Induced Decomposition of an Organic Peroxy Radical: A New Source of the HO ₂ Radical. <i>Angewandte Chemie</i> , 2015, 127, 15937-15940. | 1.6 | 4 |
| 335 | Analytic <i>ab initio</i> -based molecular interaction potential for the BrO...H ₂ O complex. <i>Journal of Chemical Physics</i> , 2016, 144, 204121. | 1.2 | 4 |
| 336 | Thermodynamics and Kinetics for the Free Radical Oxygen Protein Oxidation Pathway in a Model for β -Structured Peptides. <i>Journal of Physical Chemistry A</i> , 2016, 120, 2493-2503. | 1.1 | 4 |
| 337 | Resolving the HONO formation mechanism in the ionosphere via <i>ab initio</i> molecular dynamic simulations. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2016, 113, 4629-4633. | 3.3 | 4 |
| 338 | Energetic Properties and Electronic Structure of [Si ₂ N ₂ S] and [Si ₂ P ₂ S] Isomers. <i>Journal of Physical Chemistry A</i> , 2016, 120, 1691-1697. | 1.1 | 4 |
| 339 | Thioaldehydes from Aldehyde-Hydrogen Sulfide Interaction Under Organocatalysis. <i>Chemistry - A European Journal</i> , 2017, 23, 2522-2526. | 1.7 | 4 |
| 340 | Intramolecular hydrogen bonding in malonaldehyde and its radical analogues. <i>Journal of Chemical Physics</i> , 2017, 147, 124309. | 1.2 | 4 |
| 341 | Accurate spectroscopic characterization of the HOC(O)O radical: A route toward its experimental identification. <i>Journal of Chemical Physics</i> , 2017, 147, 024302. | 1.2 | 4 |
| 342 | Spectroscopic Identification of H ₂ NSO and <i>syn</i> - and <i>anti</i> -HNSOH Radicals. <i>Angewandte Chemie - International Edition</i> , 2018, 57, 7513-7517. | 7.2 | 4 |

| # | ARTICLE | IF | CITATIONS |
|-----|---|-----|-----------|
| 343 | Designing Flexible Quantum Spin Hall Insulators through 2D Ordered Hybrid Transition-Metal Carbides. <i>Journal of Physical Chemistry C</i> , 2019, 123, 20664-20674. | 1.5 | 4 |
| 344 | Photodissociation Mechanisms of Major Mercury(II) Species in the Atmospheric Chemical Cycle of Mercury. <i>Angewandte Chemie</i> , 2020, 132, 7675-7680. | 1.6 | 4 |
| 345 | Adsorption and isomerization of glyoxal and methylglyoxal at the air/hydroxylated silica surface. <i>Journal of Chemical Physics</i> , 2020, 152, 164702. | 1.2 | 4 |
| 346 | Spectroscopic Characterization of the First and Second Excited States of the HOSO Radical. <i>Journal of Physical Chemistry A</i> , 2021, 125, 6254-6262. | 1.1 | 4 |
| 347 | Dihalogenated Methylperoxy Radicals: Spectroscopic Characterization and Photodecomposition by Release of HO ₂ . <i>Chemistry - A European Journal</i> , 2020, 26, 2817-2820. | 1.7 | 4 |
| 348 | Spectroscopic Properties Relevant to Astronomical and Laboratory Detection of MCH and MCH ⁺ (M = Al, Mg). <i>Astrophysical Journal</i> , 2022, 924, 139. | 1.6 | 4 |
| 349 | Uptake and hydration of sulfur dioxide on dry and wet hydroxylated silica surfaces: a computational study. <i>Physical Chemistry Chemical Physics</i> , 2021, 24, 172-179. | 1.3 | 4 |
| 350 | The Chemistry of Mercury in the Stratosphere. <i>Geophysical Research Letters</i> , 2022, 49, . | 1.5 | 4 |
| 351 | An ab initio calculation of the energetics for the FO+HCl ⁺ →HOF+Cl reaction. <i>Molecular Physics</i> , 1994, 82, 831-833. | 0.8 | 3 |
| 352 | Ab initio prediction of the barrier height for abstraction of hydrogen from H ₂ O ₂ by ClO radical. <i>Molecular Physics</i> , 1995, 85, 1069-1071. | 0.8 | 3 |
| 353 | Ab initio studies on the low-lying excited states of ClO ₃ and BrO ₃ . <i>Journal of Chemical Physics</i> , 2000, 112, 8866-8870. | 1.2 | 3 |
| 354 | Structure and vibrational spectra of bromine reservoir species from the atmospheric oxidations of bromoethane and bromopropane. <i>Molecular Physics</i> , 2008, 106, 299-314. | 0.8 | 3 |
| 355 | Heteroatom Tuning of Bimolecular Criegee Reactions and Its Implications. <i>Angewandte Chemie</i> , 2016, 128, 13630-13633. | 1.6 | 3 |
| 356 | Scholarly Integrity. <i>Angewandte Chemie - International Edition</i> , 2017, 56, 4070-4071. | 7.2 | 3 |
| 357 | Spectroscopic identification of the ¹³ CSSNO isomers. <i>Journal of Chemical Physics</i> , 2020, 153, 094303. | 1.2 | 3 |
| 358 | Mechanisms of Acid-Promoted N ₂ and N ₂ O Generation from NH ₂ NO and NH ₂ NO ₂ . <i>Journal of Physical Chemistry A</i> , 2020, 124, 7575-7584. | 1.1 | 3 |
| 359 | Spectroscopic characterization of the first excited state and photochemistry of the HO ₃ radical. <i>Journal of Chemical Physics</i> , 2020, 152, 064304. | 1.2 | 3 |
| 360 | Multiple Wetting and Dewetting States of a Water Droplet on Dual-Scale Hierarchical Structured Surfaces. <i>Jacs Au</i> , 2021, 1, 955-966. | 3.6 | 3 |

| # | ARTICLE | IF | CITATIONS |
|-----|---|-----|-----------|
| 361 | Matrix-isolated trifluoromethylthiyl radical: sulfur atom transfer, isomerization and oxidation reactions. <i>Chemical Communications</i> , 2021, 57, 12143-12146. | 2.2 | 3 |
| 362 | Spectral Signatures of Hydrogen Thioperoxide (HOSH) and Hydrogen Persulfide (HSSH): Possible Molecular Sulfur Sinks in the Dense ISM. <i>Molecules</i> , 2022, 27, 3200. | 1.7 | 3 |
| 363 | The Photoionization Dynamics, Electronic Spectroscopy, and Excited State Photochemistry of AlCO and AlOC. <i>Astrophysical Journal</i> , 2022, 933, 192. | 1.6 | 3 |
| 364 | A CASSCF-MRCI study of the electronic excited states of FCIO and FOCl. <i>Journal of Chemical Physics</i> , 1999, 110, 2404-2409. | 1.2 | 2 |
| 365 | Ab initio study of the electronic spectrum of the CH ₃ OCH ₂ radical. <i>Journal of Chemical Physics</i> , 1999, 110, 4410-4412. | 1.2 | 2 |
| 366 | A coupled-cluster study of the mechanism for the CHF+H reaction. <i>Journal of Chemical Physics</i> , 1999, 111, 3457-3463. | 1.2 | 2 |
| 367 | CASSCF and MRCI studies on the electronic excited states of CHBrO, CClBrO, and CBr ₂ O. <i>Journal of Chemical Physics</i> , 2000, 113, 1807-1812. | 1.2 | 2 |
| 368 | Chemistry in a Global Economy – An Education Agenda. <i>Journal of Chemical Education</i> , 2008, 85, 1338. | 1.1 | 2 |
| 369 | Internationale Kooperationen: ein Schlüssel zu wissenschaftlichem Erfolg. <i>Angewandte Chemie</i> , 2015, 127, 15196-15197. | 1.6 | 2 |
| 370 | Stereoisomers of hydroxymethanes: Probing structural and spectroscopic features upon substitution. <i>Journal of Chemical Physics</i> , 2016, 145, 244305. | 1.2 | 2 |
| 371 | Communication: Interaction of BrO radical with the surface of water. <i>Journal of Chemical Physics</i> , 2016, 145, 241102. | 1.2 | 2 |
| 372 | Wissenschaftliche Integrität. <i>Angewandte Chemie</i> , 2017, 129, 4130-4132. | 1.6 | 2 |
| 373 | Criegee intermediate inside fullerene cage: Evidence for size-dependent reactivity. <i>Journal of Chemical Physics</i> , 2018, 148, 244301. | 1.2 | 2 |
| 374 | Wie wir das Vertrauen in die Wissenschaft wiederherstellen können – und warum dies unerlässlich ist. <i>Angewandte Chemie</i> , 2018, 130, 13888-13890. | 1.6 | 2 |
| 375 | Rotational (de-)excitation of NS+(X ¹ Σ ⁺) by collision with He at low temperature. <i>Monthly Notices of the Royal Astronomical Society</i> , 2018, 480, 4259-4264. | 1.6 | 2 |
| 376 | Specific inter-domain interactions stabilize a compact HIV-1 Gag conformation. <i>PLoS ONE</i> , 2019, 14, e0221256. | 1.1 | 2 |
| 377 | Editorial: Securing Academic Freedom through Networks. <i>Angewandte Chemie - International Edition</i> , 2019, 58, 8246-8248. | 7.2 | 2 |
| 378 | Theoretical rovibrational characterization of HAINP: Weak bonding but strong intensities. <i>Journal of Molecular Spectroscopy</i> , 2021, 377, 111422. | 0.4 | 2 |

| # | ARTICLE | IF | CITATIONS |
|-----|--|-----|-----------|
| 379 | Astrochemical Significance of the P + SO Reaction: Spectroscopic Characterization of SPO, PSO, and SOP Isomers. <i>Astrophysical Journal</i> , 2021, 909, 122. | 1.6 | 2 |
| 380 | Mechanistic Study of the Aqueous Reaction of Organic Peroxides with HSO ₃ ⁻ on the Surface of a Water Droplet. <i>Angewandte Chemie</i> , 2021, 133, 20362-20365. | 1.6 | 2 |
| 381 | Anharmonic fundamental vibrational frequencies and spectroscopic constants of the potential HSO ₂ radical astromolecule. <i>Journal of Chemical Physics</i> , 2021, 155, 114301. | 1.2 | 2 |
| 382 | Generation and Release of OH Radicals from the Reaction of H ₂ O with O ₂ over Soot. <i>Angewandte Chemie</i> , 0, , . | 1.6 | 2 |
| 383 | ALOSO: Spectroscopy and Structure of a New Group of Astrochemical Molecules. <i>Astrophysical Journal</i> , 2022, 930, 29. | 1.6 | 2 |
| 384 | Atmospheric Chemistry of Organic Halides. , 0, , 1559-1583. | | 1 |
| 385 | A coupled-cluster study of the molecular structure, vibrational frequencies, and energetics of COBr ⁺ and BrCO ⁺ cations. <i>Journal of Chemical Physics</i> , 1999, 111, 3464-3467. | 1.2 | 1 |
| 386 | Coupled cluster study of the structure and vibrational spectrum of HC(O)O ⁺ . <i>Molecular Physics</i> , 1999, 96, 877-880. | 0.8 | 1 |
| 387 | Molecular structure, vibrational frequencies, energetics, and excited states of the HOONO ⁺ ions. <i>Journal of Chemical Physics</i> , 2003, 118, 1721-1728. | 1.2 | 1 |
| 388 | Coupled-cluster studies of HOONO ⁺ : Additional conformers of the 2A ⁺ ON+OOH complex and a comparison of restricted and unrestricted open-shell Hartree-Fock coupled-cluster results. <i>International Journal of Quantum Chemistry</i> , 2004, 100, 764-770. | 1.0 | 1 |
| 389 | Back Cover: Reactivity of Atmospherically Relevant Small Radicals at the Air-Water Interface (<i>Angew.</i>) Tj ETQq1 1 0,784314 rgBT /Overlo | 7.2 | 1 |
| 390 | Structure and spectroscopic properties of low-lying states of the HOC(O)O radical. <i>Journal of Chemical Physics</i> , 2016, 144, 084306. | 1.2 | 1 |
| 391 | Characterization of the electronic states of the biological relevant SSNO molecule. <i>Journal of Chemical Physics</i> , 2017, 146, 074301. | 1.2 | 1 |
| 392 | Toward the detection of the triatomic negative ion SPN ⁻ : Spectroscopy and potential energy surfaces. <i>Journal of Chemical Physics</i> , 2018, 148, 164305. | 1.2 | 1 |
| 393 | The Triplet Hydroxyl Radical Complex of Phosphorus Monoxide. <i>Angewandte Chemie</i> , 2020, 132, 22133-22137. | 1.6 | 1 |
| 394 | Energetic Properties, Spectroscopy, and Reactivity of NF ₃ O. <i>Journal of Physical Chemistry A</i> , 2020, 124, 5237-5245. | 1.1 | 1 |
| 395 | Photochemistry from low-lying states of HOSO ⁺ . <i>Journal of Chemical Physics</i> , 2020, 152, 134302. | 1.2 | 1 |
| 396 | Photochemistry of NH ₂ NO ₂ and implications for chemistry in the atmosphere. <i>Journal of Chemical Physics</i> , 2021, 154, 194301. | 1.2 | 1 |

| # | ARTICLE | IF | CITATIONS |
|-----|---|-----|-----------|
| 397 | Catalytic and autocatalytic chemical processes in the atmosphere. Annual Reports in Computational Chemistry, 2020, 16, 157-185. | 0.9 | 1 |
| 398 | Innentitelbild: Generation and Release of OH Radicals from the Reaction of H ₂ O with O ₂ over Soot (Angew. Chem. 21/2022). Angewandte Chemie, 2022, 134, . | 1.6 | 1 |
| 399 | The Future of U.S. Chemistry Research: Benchmarks and Challenges. Journal of Chemical Education, 2007, 84, 1089. | 1.1 | 0 |
| 400 | Frontispiece: The Methylsulfonyloxy Radical, CH ₃ SO ₃ . Angewandte Chemie - International Edition, 2015, 54, . | 7.2 | 0 |
| 401 | Spectroscopic characterization of the ethyl radical-water complex. Journal of Chemical Physics, 2016, 145, 144301. | 1.2 | 0 |
| 402 | Energetic Properties and Electronic Structure of [C,N,O,P] and [C,N,S,P] Isomers. Journal of Physical Chemistry A, 2017, 121, 2180-2186. | 1.1 | 0 |
| 403 | Frontispiece: Surprising Stability of Larger Criegee Intermediates on Aqueous Interfaces. Angewandte Chemie - International Edition, 2017, 56, . | 7.2 | 0 |
| 404 | InnenrÄ¼cktitelbild: Heterocumulene Sulfinyl Radical OCNSO (Angew. Chem. 8/2017). Angewandte Chemie, 2017, 129, 2253-2253. | 1.6 | 0 |
| 405 | Frontispiz: Surprising Stability of Larger Criegee Intermediates on Aqueous Interfaces. Angewandte Chemie, 2017, 129, . | 1.6 | 0 |
| 406 | Tribute to Veronica Vaida. Journal of Physical Chemistry A, 2018, 122, 1157-1158. | 1.1 | 0 |
| 407 | Spectroscopic Identification of H ₂ NSO and <i>syn</i> - and <i>anti</i> -HNSOH Radicals. Angewandte Chemie, 2018, 130, 7635-7639. | 1.6 | 0 |
| 408 | Editorial: Wissenschaftsfreiheit mithilfe von Netzwerken sichern. Angewandte Chemie, 2019, 131, 8332-8334. | 1.6 | 0 |
| 409 | RÄ¼cktitelbild: The Triplet Hydroxyl Radical Complex of Phosphorus Monoxide (Angew. Chem. 49/2020). Angewandte Chemie, 2020, 132, 22452-22452. | 1.6 | 0 |