# Zefeng Ren

List of Publications by Year
in descending order

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|---|---|---|---|
| 62 papers | 2,847 citations | 218677 26 h-index | 168389 53 g-index |
| 65 all docs | 65 docs citations | 65 times ranked | 2770 citing authors |

| # | Article | IF | Citations |
|---|---|---|---|
| 1 | Top-Seed Solution-Based Growth of Perovskite Cs<sub>3</sub>Bi<sub>2</sub>I<sub>9</sub> Single Crystal for High Performance X-ray Detection. ACS Photonics, 2022, 9, 641-651. | 6.6 | 25 |
| 2 | Chiral Hybrid Copper(I) Halides for High Efficiency Second Harmonic Generation with a Broadband Transparency Window. Angewandte Chemie - International Edition, 2022, 61, . | 13.8 | 53 |
| 3 | Valence Band of Rutile TiO<sub>2</sub>(110) Investigated by Polarized-Light-Based Angle-Resolved Photoelectron Spectroscopy. Journal of Physical Chemistry Letters, 2022, 13, 2299-2305. | 4.6 | 6 |
| 4 | Photocatalytic Câ€“H Bond Activation of Toluene on Rutile TiO<sub>2</sub>(110). Journal of Physical Chemistry C, 2022, 126, 11963-11970. | 3.1 | 9 |
| 5 | Origin of the Adsorption-State-Dependent Photoactivity of Methanol on TiO<sub>2</sub>(110). ACS Catalysis, 2021, 11, 2620-2630. | 11.2 | 18 |
| 6 | Full diagnostics and optimization of time resolution for time- and angle-resolved photoemission spectroscopy. Review of Scientific Instruments, 2021, 92, 033904. | 1.3 | 10 |
| 7 | Alkoxylation Reaction of Alcohol on Silica Surfaces Studied by Sum Frequency Vibrational Spectroscopy. Journal of Physical Chemistry C, 2021, 125, 8638-8646. | 3.1 | 17 |
| 8 | Hydrophobic Modification of Silica Surfaces via Grafting Alkoxy Groups. ACS Applied Electronic Materials, 2021, 3, 1691-1698. | 4.3 | 8 |
| 9 | Ultrahigh sensitive transient absorption spectrometer. Review of Scientific Instruments, 2021, 92, 053002. | 1.3 | 7 |
| 10 | Efficient generation of narrowband picosecond pulses from a femtosecond laser. Review of Scientific Instruments, 2021, 92, 083001. | 1.3 | 2 |
| 11 | Spatially heterogeneous ultrafast interfacial carrier dynamics of 2D-MoS2 flakes. Materials Today Physics, 2021, 21, 100506. | 6.0 | 6 |
| 12 | Anisotropic dâ€“d Transition in Rutile TiO<sub>2</sub>. Journal of Physical Chemistry Letters, 2021, 12, 10515-10520. | 4.6 | 5 |
| 13 | Epitaxial Growth of Centimeter-Scale Single-Crystal MoS<sub>2</sub> Monolayer on Au(111). ACS Nano, 2020, 14, 5036-5045. | 14.6 | 211 |
| 14 | Adsorption Structure and Coverage-Dependent Orientation Analysis of Sub-Monolayer Acetonitrile on TiO<sub>2</sub>(110). Journal of Physical Chemistry C, 2019, 123, 17915-17924. | 3.1 | 6 |
| 15 | A broadband sum-frequency generation vibrational spectrometer to probe adsorbed molecules on nanoparticles. Surface Science, 2019, 689, 121459. | 1.9 | 12 |
| 16 | Single Molecule Photocatalysis on TiO<sub>2</sub> Surfaces. Chemical Reviews, 2019, 119, 11020-11041. | 47.7 | 212 |
| 17 | Active Species in Photocatalytic Reactions of Methanol on TiO<sub>2</sub>(110) Identified by Surface Sum Frequency Generation Vibrational Spectroscopy. Journal of Physical Chemistry C, 2019, 123, 13789-13794. | 3.1 | 11 |
| 18 | In Situ Studies on Temperature-Dependent Photocatalytic Reactions of Methanol on TiO<sub>2</sub>(110). Journal of Physical Chemistry C, 2019, 123, 9993-9999. | 3.1 | 14 |

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|---|---|---|---|
| 19 | Flexible high-resolution broadband sum-frequency generation vibrational spectroscopy for intrinsic spectral line widths. Journal of Chemical Physics, 2019, 150, 074702. | 3.0 | 16 |
| 20 | Femtosecond time-resolved spectroscopic photoemission electron microscopy for probing ultrafast carrier dynamics in heterojunctions. Chinese Journal of Chemical Physics, 2019, 32, 399-405. | 1.3 | 5 |
| 21 | Role of Pt Loading in the Photocatalytic Chemistry of Methanol on Rutile TiO<sub>2</sub>(110). ACS Catalysis, 2019, 9, 286-294. | 11.2 | 39 |
| 22 | Elementary Chemical Reactions in Surface Photocatalysis. Annual Review of Physical Chemistry, 2018, 69, 451-472. | 10.8 | 31 |
| 23 | Deuterium Kinetic Isotope Effect in the Photocatalyzed Dissociation of Methanol on TiO<sub>2</sub>(110). Journal of Physical Chemistry C, 2018, 122, 26512-26518. | 3.1 | 7 |
| 24 | A review of dynamical resonances in Aâ€‰â€‰+â€‰â€‰BC chemical reactions. Reports on Progress in Physics, 2017, 80, 026401. | 20.1 | 11 |
| 25 | CH<sub>2</sub> Stabilized at Steps on Ru(0001) by Coadsorbates. Journal of Physical Chemistry C, 2016, 120, 24724-24733. | 3.1 | 8 |
| 26 | Compact ultrahigh vacuum/high-pressure system for broadband infrared sum frequency generation vibrational spectroscopy studies. Review of Scientific Instruments, 2016, 87, 044101. | 1.3 | 9 |
| 27 | Fundamental Processes in Surface Photocatalysis on TiO2. Green Chemistry and Sustainable Technology, 2016, , 361-416. | 0.7 | 2 |
| 28 | Elementary photocatalytic chemistry on TiO<sub>2</sub>surfaces. Chemical Society Reviews, 2016, 45, 3701-3730. | 38.1 | 288 |
| 29 | Methanol Adsorption on TiO2 Film Studied by Sum Frequency Generation Vibrational Spectroscopy. Chinese Journal of Chemical Physics, 2015, 28, 11-16. | 1.3 | 12 |
| 30 | Recombination of Formaldehyde and Hydrogen Atoms on TiO<sub>2</sub>(110). Journal of Physical Chemistry C, 2015, 119, 1170-1174. | 3.1 | 26 |
| 31 | Coverage Dependence of Methanol Dissociation on TiO<sub>2</sub>(110). Journal of Physical Chemistry Letters, 2015, 6, 3327-3334. | 4.6 | 62 |
| 32 | In Situ Studies on the Dissociation and Photocatalytic Reactions of CH<sub>3</sub>OH on TiO<sub>2</sub> Thin Film by Sum Frequency Generation Vibrational Spectroscopy. Journal of Physical Chemistry C, 2015, 119, 9798-9804. | 3.1 | 33 |
| 33 | Spectral Identification of Methanol on TiO<sub>2</sub>(110) Surfaces with Sum Frequency Generation in the Câ€“H Stretching Region. Journal of Physical Chemistry C, 2015, 119, 23486-23494. | 3.1 | 33 |
| 34 | Characterization of the Excited State on Methanol/TiO2(110) Interface. Chinese Journal of Chemical Physics, 2015, 28, 123-127. | 1.3 | 3 |
| 35 | Controlling CH 2 dissociation on Ru(0001) through surface site blocking by adsorbed hydrogen. Journal of Catalysis, 2014, 320, 89-96. | 6.2 | 13 |
| 36 | First-Principles Study of Methanol Oxidation into Methyl Formate on Rutile TiO<sub>2</sub>(110). Journal of Physical Chemistry C, 2014, 118, 19859-19868. | 3.1 | 33 |

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|---|---|---|---|
| 37 | Dynamical Resonances in FÂ+ÂH2 Reactions. Springer Theses, 2014, , 33-64. | 0.1 | 0 |
| 38 | The Non-adiabatic Effects in F(2P)Â+ÂD2Âât'ÂDFÂ+ÂD. Springer Theses, 2014, , 65-76. | 0.1 | 0 |
| 39 | Hydrogen Atom Rydberg Tagging Time-of-Flight Crossed Molecular Beam Apparatus. Springer Theses, 2014, , 9-32. | 0.1 | 0 |
| 40 | State-to-State Dynamical Research in the F+H2 Reaction System. Springer Theses, 2014, , . | 0.1 | 2 |
| 41 | Band-Gap States of TiO<sub>2</sub>(110): Major Contribution from Surface Defects. Journal of Physical Chemistry Letters, 2013, 4, 3839-3844. | 4.6 | 76 |
| 42 | Methyl Formate Production on TiO<sub>2</sub>(110), Initiated by Methanol Photocatalysis at 400 nm. Journal of Physical Chemistry C, 2013, 117, 5293-5300. | 3.1 | 100 |
| 43 | Photocatalytic Dissociation of Ethanol on TiO2(110) by Near-Band-Gap Excitation. Journal of Physical Chemistry C, 2013, 117, 10336-10344. | 3.1 | 37 |
| 44 | Strong Photon Energy Dependence of the Photocatalytic Dissociation Rate of Methanol on TiO<sub>2</sub>(110). Journal of the American Chemical Society, 2013, 135, 19039-19045. | 13.7 | 58 |
| 45 | Kinetics and Dynamics of Photocatalyzed Dissociation of Ethanol on TiO2(110). Chinese Journal of Chemical Physics, 2013, 26, 1-7. | 1.3 | 8 |
| 46 | Stepwise Photocatalytic Dissociation of Methanol and Water on TiO<sub>2</sub>(110). Journal of the American Chemical Society, 2012, 134, 13366-13373. | 13.7 | 244 |
| 47 | Surface Photocatalysis-TPD Spectrometer for Photochemical Kinetics. Chinese Journal of Chemical Physics, 2012, 25, 507-512. | 1.3 | 18 |
| 48 | Surface photochemistry probed by two-photon photoemission spectroscopy. Energy and Environmental Science, 2012, 5, 6833. | 30.8 | 27 |
| 49 | Effect of defects on photocatalytic dissociation of methanol on TiO2(110). Chemical Science, 2011, 2, 1980. | 7.4 | 61 |
| 50 | Site-specific photocatalytic splitting of methanol on TiO2(110). Chemical Science, 2010, 1, 575. | 7.4 | 150 |
| 51 | A Surface Femtosecond Two-Photon Photoemission Spectrometer for Excited Electron Dynamics and Time-Dependent Photochemical Kinetics. Chinese Journal of Chemical Physics, 2010, 23, 255-261. | 1.3 | 19 |
| 52 | High Resolution Crossed Beams Scattering Study of the F+HDDF+H Reaction. Chinese Journal of Chemical Physics, 2009, 22, 551-555. | 1.3 | 3 |
| 53 | Probing the resonance potential in the F atom reaction with hydrogen deuteride with spectroscopic accuracy. Proceedings of the National Academy of Sciences of the United States of America, 2008, 105, 12662-12666. | 7.1 | 75 |
| 54 | The Extent of Nonâ€"Born-Oppenheimer Coupling in the Reaction of Cl( <sup>2</sup> P ) with para- H <sub>2</sub>. Science, 2008, 322, 573-576. | 12.6 | 95 |

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|---|---|---|---|
| 55 | HF( vâ€² = 3) forward scattering in the F + H <sub>2</sub> reaction: Shape resonance and slow-down mechanism. Proceedings of the National Academy of Sciences of the United States of America, 2008, 105, 6227-6231. | 7.1 | 72 |
| 56 | Breakdown of the Born-Oppenheimer Approximation in the F+ o -D <sub>2</sub> â†' DF + D Reaction. Science, 2007, 317, 1061-1064. | 12.6 | 149 |
| 57 | Probing Feshbach resonances in F+H2(j=1)â†'HF+H: Dynamical effect of single quantum H2-rotation. Journal of Chemical Physics, 2006, 125, 151102. | 3.0 | 30 |
| 58 | A double-stage pulsed discharge fluorine atom beam source. Review of Scientific Instruments, 2006, 77, 016102. | 1.3 | 31 |
| 59 | Observation of Feshbach Resonances in the F + H2 -> HF + H Reaction. Science, 2006, 311, 1440-1443. | 12.6 | 278 |
| 60 | Full Quantum State Resolved Scattering Dynamics of the F+H2HF+H Reaction at 5.02 kJ/mol. Chinese Journal of Chemical Physics, 2006, 19, 93-95. | 1.3 | 15 |
| 61 | High resolution time-of-flight spectrometer for crossed molecular beam study of elementary chemical reactions. Review of Scientific Instruments, 2005, 76, 083107. | 1.3 | 29 |
| 62 | Chiral Hybrid Copper(I) Halides for High Efficiency Second Harmonic Generation with a Broadband Transparency Window. Angewandte Chemie, 0, , . | 2.0 | 7 |