# Xiangjian Shen

List of Publications by Year
in descending order

Source: https://exaly.com/author-pdf/4727117/publications.pdf

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| 32 | 1,169 | 623574 | 395590 |
|---|---|---|---|
| papers | citations | 14 | 33 |
| | | h-index | g-index |

| 33 | 33 | 33 | 1071 |
|---|---|---|---|
| all docs | docs citations | times ranked | citing authors |

| # | Article | IF | Citations |
|---|---|---|---|
| 1 | NiCoP nanowire@NiCo-layered double hydroxides nanosheet heterostructure for flexible asymmetric supercapacitors. Chemical Engineering Journal, 2020, 384, 123373. | 6.6 | 219 |
| 2 | Electronic Structure Engineering of Singleâ€Atom Ru Sites via Coâ€“N4 Sites for Bifunctional pHâ€Universal Water Splitting. Advanced Materials, 2022, 34, e2110103. | 11.1 | 199 |
| 3 | In Situ Reconstruction of Vâ€Doped Ni<sub>2</sub>P Preâ€Catalysts with Tunable Electronic Structures for Water Oxidation. Advanced Functional Materials, 2021, 31, 2100614. | 7.8 | 129 |
| 4 | Engineering the Activity and Stability of MOFâ€Nanocomposites for Efficient Water Oxidation. Advanced Energy Materials, 2021, 11, 2003759. | 10.2 | 108 |
| 5 | The origin of palladium particle size effects in the direct synthesis of H2O2: Is smaller better?. Journal of Catalysis, 2017, 349, 30-40. | 3.1 | 98 |
| 6 | Methane dissociation on Ni(111): A fifteen-dimensional potential energy surface using neural network method. Journal of Chemical Physics, 2015, 143, 144701. | 1.2 | 68 |
| 7 | CH<sub>4</sub> dissociation on Ni(111): a quantum dynamics study of lattice thermal motion. Physical Chemistry Chemical Physics, 2015, 17, 25499-25504. | 1.3 | 41 |
| 8 | Construction of graphene oxide based mixed matrix membranes with CO<sub>2</sub>-philic sieving gas-transport channels through strong Ï€â€“Ï€ interactions. Journal of Materials Chemistry A, 2018, 6, 17854-17860. | 5.2 | 35 |
| 9 | Tuning the surface energy density of non-stoichiometric LaCoO3 perovskite for enhanced water oxidation. Journal of Power Sources, 2020, 478, 228748. | 4.0 | 33 |
| 10 | Communication: Methane dissociation on Ni(111) surface: Importance of azimuth and surface impact site. Journal of Chemical Physics, 2016, 144, 101101. | 1.2 | 30 |
| 11 | Hydrogen diffusion on Fe surface and into subsurface from first principles. Surface Science, 2016, 654, 48-55. | 0.8 | 21 |
| 12 | Hydrogen diffusion into the subsurfaces of model metal catalysts from first principles. Physical Chemistry Chemical Physics, 2017, 19, 3557-3564. | 1.3 | 21 |
| 13 | Water dissociating on rigid Ni(100): A quantum dynamics study on a full-dimensional potential energy surface. Journal of Chemical Physics, 2018, 148, 144705. | 1.2 | 20 |
| 14 | Diffusion mechanisms of metal atoms in Pd Au bimetallic catalyst under CO atmosphere based on ab initio molecular dynamics. Applied Surface Science, 2019, 483, 991-1005. | 3.1 | 19 |
| 15 | Eight-Dimensional Quantum Dynamics Study of CH<sub>4</sub> and CD<sub>4</sub> Dissociation on Ni(100) Surface. Journal of Physical Chemistry C, 2016, 120, 20199-20205. | 1.5 | 12 |
| 16 | Dissociative chemisorption of O2 on Agn and Agnâ^'1Ir (n = 3â€“26) clusters: a first-principle study. Physical Chemistry Chemical Physics, 2020, 22, 9053-9066. | 1.3 | 11 |
| 17 | A Synergistic effect on the atomic cluster M<sub>4</sub> supported on MN<sub>4</sub>-graphene (M) Tj ETQq1 1 0.784314 rgBT /O 11704-11712. | 1.3 | 11 |
| 18 | Abnormal subsurface hydrogen diffusion behaviors in heterogeneous hydrogenation reactions. Journal of Chemical Physics, 2018, 149, 174704. | 1.2 | 10 |

| # | Article | IF | Citations |
|---|---|---|---|
| 19 | Methane activation on single-atom Ir-doped metal nanoparticles from first principles. Physical Chemistry Chemical Physics, 2021, 23, 15564-15573. | 1.3 | 10 |
| 20 | Hot-Atom Mechanism in Syngas Methanation on Precovered Pd(100) Surfaces. Journal of Physical Chemistry Letters, 2020, 11, 5312-5317. | 2.1 | 9 |
| 21 | Methane dissociation on Ni(111): A seven-dimensional to nine-dimensional quantum dynamics study. Journal of Chemical Physics, 2017, 147, 024702. | 1.2 | 8 |
| 22 | Enhanced diffusion and permeation of hydrogen species on the partially carbon covered iron surfaces. Applied Surface Science, 2020, 515, 145899. | 3.1 | 8 |
| 23 | Curvature Effects on the Magnetism of Ultrashort Zigzag Carbon Nanotubes and Nanographenes. Journal of Physical Chemistry C, 2010, 114, 7553-7557. | 1.5 | 7 |
| 24 | Hydrogen evolution reaction on transition metal nanoparticles from first-principles. Applied Surface Science, 2021, 570, 151211. | 3.1 | 7 |
| 25 | A simulated-TPD study of H2 desorption on metal surfaces. Surface Science, 2022, 718, 122015. | 0.8 | 7 |
| 26 | A thermodynamics study of hydrogen interaction with (1 1 0) transition metal surfaces. Applied Surface Science, 2021, 545, 148961. | 3.1 | 6 |
| 27 | Improved oxidation of hydrogen off-gas by hydrophobic surface modification: A multiscale density functional theory study. Particuology, 2019, 44, 28-35. | 2.0 | 4 |
| 28 | High chemisorption abilities of hydrogen and oxygen on ultrasmall iron clusters: A first-principles study. Chemical Physics Letters, 2018, 705, 59-64. | 1.2 | 3 |
| 29 | Oxygen Evolution Reaction: Engineering the Activity and Stability of MOFâ€Nanocomposites for Efficient Water Oxidation (Adv. Energy Mater. 16/2021). Advanced Energy Materials, 2021, 11, 2170063. | 10.2 | 3 |
| 30 | Theoretical new insights into hydrogen interaction with single-atom Zn- and co-doped copper metal catalysts. Applied Surface Science, 2021, 551, 149365. | 3.1 | 2 |
| 31 | Enhanced effect of H2O monolayer on metal doped nitrogen-containing graphene for hydrogen evolution reactions. Chemical Engineering Journal, 2022, 431, 133283. | 6.6 | 2 |
| 32 | Hydrogen diffusion on and into the hydrogen-covered Pd(1 0 0) surfaces from first-principles. Chemical Physics Letters, 2022, 794, 139509. | 1.2 | 2 |