

# Mohsen Vafaei

## List of Publications by Year in descending order

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Version: 2024-02-01

24  
papers

281  
citations

1039880

9  
h-index

940416

16  
g-index

24  
all docs

24  
docs citations

24  
times ranked

267  
citing authors

| #  | ARTICLE   | IF  | CITATIONS |
|----|---|-----|-----------|
| 1  | <i>Ab initio</i> study of sodium diffusion and adsorption on boron-doped graphyne as promising anode material in sodium-ion batteries. <i>Physical Chemistry Chemical Physics</i> , 2018, 20, 29889-29895.                                      | 1.3 | 36        |
| 2  | Iron-Nanoparticle-Loaded Nitrogen-Doped Carbon Nanotube/Carbon Sheet Composites Derived from MOF as Electrocatalysts for an Oxygen Reduction Reaction. <i>ACS Applied Nano Materials</i> , 2021, 4, 459-477.                                    | 2.4 | 35        |
| 3  | A detailed and precise study of the ionization rates of H <sub>2</sub> in intense laser fields. <i>Journal of Physics B: Atomic, Molecular and Optical Physics</i> , 2004, 37, 4143-4157.   | 0.6 | 30        |
| 4  | Detailed instantaneous ionization rate of H <sub>2</sub> in an intense laser field. <i>Physical Review A</i> , 2006, 74, .  | 1.0 | 29        |
| 5  | Phosphorene and graphene flakes under the effect of external electric field as an anode material for high-performance lithium-ion batteries: A first-principles study. <i>Computational Materials Science</i> , 2019, 165, 144-153.             | 1.4 | 23        |
| 6  | Intensity dependence of the H <sub>2</sub> ionization rates in Ti:sapphire laser fields above the Coulomb-explosion threshold. <i>Physical Review A</i> , 2005, 71, .   | 1.0 | 20        |
| 7  | Investigation of Boron-Doped Graphdiyne as a Promising Anode Material for Sodium-Ion Batteries: A Computational Study. <i>ACS Omega</i> , 2020, 5, 10034-10041.   | 1.6 | 20        |
| 8  | Nuclear kinetic energy spectra of $D^{2+}$ in an intense laser field: Beyond the Born-Oppenheimer approximation. <i>Physical Review A</i> , 2008, 78, .   | 1.0 | 17        |
| 9  | Precise description of single and double ionization of hydrogen molecule in intense laser pulses. <i>Journal of Chemical Physics</i> , 2012, 137, 044112.   | 1.2 | 9         |
| 10 | Nuclear classical dynamics of H <sub>2</sub> in an intense laser field. <i>Journal of Physics B: Atomic, Molecular and Optical Physics</i> , 2011, 44, 165601.  | 0.6 | 8         |
| 11 | Mapping electron dynamics in molecular H <sub>2</sub> using high-order-harmonic-generation time profiles. <i>Physical Review A</i> , 2012, 85, .  | 1.0 | 7         |
| 12 | Four-photon Kapitza-Dirac effect as an electron spin filter. <i>Physical Review A</i> , 2018, 98, .   | 1.0 | 6         |
| 13 | Attosecond charge migration following oxygen K-shell ionization in DNA bases and base pairs. <i>Physical Chemistry Chemical Physics</i> , 2021, 23, 23005-23013.  | 1.3 | 6         |
| 14 | Pathway of sequential double ionization of $D^{2+}$ in intense laser fields.  | 1.0 | 5         |
| 15 | High harmonic generation from pre-ionized H <sub>2</sub> in ultrashort intense laser fields. <i>Journal of Physics B: Atomic, Molecular and Optical Physics</i> , 2013, 46, 245401.   | 0.6 | 4         |
| 16 | A new version of fermion coupled coherent states method: Theory and applications in simulation of two-electron systems. <i>Chemical Physics Letters</i> , 2016, 653, 60-66.   | 1.2 | 4         |
| 17 | Contribution of the pre-ionized H <sub>2</sub> and the ionized H <sub>2</sub> + subsystems to the HHG Spectra of H <sub>2</sub> in intense laser fields. <i>Journal of Physics B: Atomic, Molecular and Optical Physics</i> , 2018, 51, 074003. | 0.6 | 4         |
| 18 | Investigation of electron spin dynamic in the bichromatic Kapitza-Dirac effect via frequency ratio and amplitude of laser beams. <i>Physical Review A</i> , 2019, 100, .  | 1.0 | 4         |

| #  | ARTICLE  | IF  | CITATIONS |
|----|--|-----|-----------|
| 19 | Charge migration in caffeine: A real-time time-dependent density functional theory study. International Journal of Quantum Chemistry, 2021, 121, e26754.   | 1.0 | 4         |
| 20 | Complementary version of fermion coupled coherent states method and gram-schmidt algorithm: Theory and applications for electronic states of and. Journal of Computational Chemistry, 2018, 39, 679-684. | 1.5 | 3         |
| 21 | Reply to "Comment on "Detailed instantaneous ionization rate of H <sub>2</sub> <sup>+</sup> in intense laser field". Physical Review A, 2007, 76, .  | 1.0 | 2         |
| 22 | High-order harmonic generation by H <sub>2</sub> <sup>+</sup> in super-intense xuv ultrashort laser pulses. Journal of Physics B: Atomic, Molecular and Optical Physics, 2014, 47, 105601.               | 0.6 | 2         |
| 23 | Static Coherent States Method: One- and Two-Electron Laser-Induced Systems with Classical Nuclear Dynamics. Applied Sciences (Switzerland), 2018, 8, 1252.   | 1.3 | 2         |
| 24 | High-order harmonic generation by static coherent states method in single-electron atomic and molecular systems. Journal of Computational Chemistry, 2021, 42, 1312-1320.                                | 1.5 | 1         |