# Houyang Chen

List of Publications by Year
in descending order

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|---|---|---|---|
| 80 papers | 2,405 citations | 172207 29 h-index | 233125 45 g-index |
| 83 all docs | 83 docs citations | 83 times ranked | 2461 citing authors |

| # | Article | IF | Citations |
|---|---|---|---|
| 1 | MoO42â^'-mediated engineering of Na3V2(PO4)3 as advanced cathode materials for sodium-ion batteries. Journal of Colloid and Interface Science, 2022, 606, 1897-1905. | 5.0 | 17 |
| 2 | <scp>Vacancyâ€"vacancy</scp> pairs induced new phase formation in carbon boride: A design principle to achieve superior performance Li/Naâ€ion battery anodes. EcoMat, 2022, 4, . | 6.8 | 16 |
| 3 | MoS2/CoFe2O4 heterojunction for boosting photogenerated carrier separation and the dominant role in enhancing peroxymonosulfate activation. Chemical Engineering Journal, 2022, 433, 134467. | 6.6 | 48 |
| 4 | In situ tailored strategy to remove capping agents from copper sulfide for building better lithiumâ€"sulfur batteries. Journal of Materials Chemistry A, 2022, 10, 4015-4023. | 5.2 | 7 |
| 5 | Plasma functionalized MoSe<sub>2</sub> for efficient nonenzymatic sensing of hydrogen peroxide in ultraâ€wide pH range. SmartMat, 2022, 3, 491-502. | 6.4 | 14 |
| 6 | Two-dimensional multimetallic sulfide nanosheets with multi-active sites to enhance polysulfide redox reactions in liquid Li2S6-based lithium-polysulfide batteries. Journal of Energy Chemistry, 2021, 52, 163-169. | 7.1 | 28 |
| 7 | Triple-phase interfaces of graphene-like carbon clusters on antimony trisulfide nanowires enable high-loading and long-lasting liquid Li2S6-based lithium-sulfur batteries. Journal of Energy Chemistry, 2021, 59, 599-607. | 7.1 | 26 |
| 8 | Potassium mediated Coâ€"Fe-based Prussian blue analogue architectures for aqueous potassium-ion storage. Chemical Communications, 2021, 57, 7019-7022. | 2.2 | 24 |
| 9 | Investigations of CO<sub>2</sub>Capture from Gas Mixtures Using Porous Liquids. Langmuir, 2021, 37, 1255-1266. | 1.6 | 10 |
| 10 | Monoclinic BiPO4: Preparation, photocatalytic properties in experiment and theoretical calculation. Solar Energy, 2021, 220, 440-449. | 2.9 | 13 |
| 11 | Reshaping two-dimensional MoS2 for superior magnesium-ion battery anodes. Journal of Colloid and Interface Science, 2021, 597, 401-408. | 5.0 | 16 |
| 12 | Screening and Improving Porous Materials for Ultradeep Desulfurization of Gasoline. Industrial & Engineering Chemistry Research, 2021, 60, 604-613. | 1.8 | 6 |
| 13 | Microscale investigations of mechanical responses of TKX-50 based polymer bonded explosives using MD simulations. Computational Materials Science, 2020, 172, 109287. | 1.4 | 12 |
| 14 | Bco-C24: A new 3D Dirac nodal line semi-metallic carbon honeycomb for high performance metal-ion battery anodes. Carbon, 2020, 159, 542-548. | 5.4 | 30 |
| 15 | Facet-tailoring five-coordinated Ti sites and structure-optimizing electron transfer in a bifunctional cathode with titanium nitride nanowire array to boost the performance of Li2S6-based lithiumâ€"sulfur batteries. Energy Storage Materials, 2020, 26, 40-45. | 9.5 | 43 |
| 16 | NiFe-Layered Double Hydroxide Synchronously Activated by Heterojunctions and Vacancies for the Oxygen Evolution Reaction. ACS Applied Materials & Interfaces, 2020, 12, 42850-42858. | 4.0 | 105 |
| 17 | Porous Material Screening and Evaluation for Deep Desulfurization of Dry Air. Langmuir, 2020, 36, 2775-2785. | 1.6 | 10 |
| 18 | New Findings on an Old Question: Can Defectâ€Free Graphene Monolayers be Superior Metalâ€ion Battery Anodes?. Advanced Sustainable Systems, 2020, 4, 1900152. | 2.7 | 10 |

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|---|---|---|---|
| 19 | Ultrafine Co nanodots embedded in N-doped carbon nanotubes grafted on hexagonal VN for highly efficient overall water splitting. Nano Energy, 2020, 73, 104788. | 8.2 | 71 |
| 20 | High Activity and Stability of PdO<sub>x</sub> Anchored in Porous NiO Nanofibers for Catalyzing Suzuki Coupling Reactions. Journal of Physical Chemistry C, 2020, 124, 22539-22549. | 1.5 | 10 |
| 21 | Reconfiguring graphene for high-performance metal-ion battery anodes. Energy Storage Materials, 2019, 16, 619-624. | 9.5 | 143 |
| 22 | Mechanical deformation: A feasible route for reconfiguration of inner interfaces to modulate the high performance of three-dimensional porous carbon material anodes in stretchable lithium-Ion batteries. Journal of Colloid and Interface Science, 2019, 555, 431-437. | 5.0 | 8 |
| 23 | Mechanical deformation induced charge redistribution to promote the high performance of stretchable magnesium-ion batteries based on two-dimensional C<sub>2</sub>N anodes. Nanoscale, 2019, 11, 15472-15478. | 2.8 | 14 |
| 24 | Functionalization: An Effective Approach to Open and Close Channels for Electron Transfer in Nitrogenated Holey Graphene C<sub>2</sub>N Anodes in Sodium-Ion Batteries. Journal of Physical Chemistry Letters, 2019, 10, 721-726. | 2.1 | 37 |
| 25 | Two-Dimensional Carbon-Based Auxetic Materials for Broad-Spectrum Metal-Ion Battery Anodes. Journal of Physical Chemistry Letters, 2019, 10, 3269-3275. | 2.1 | 64 |
| 26 | Computational study of transition states for reaction path of energetic material TKX-50. Journal of Energetic Materials, 2019, 37, 240-250. | 1.0 | 10 |
| 27 | Nanoseparation of Nanoparticle Mixtures with Similar Surface Structures through a Facile Two-Step Approach. Industrial & Engineering Chemistry Research, 2019, 58, 3420-3426. | 1.8 | 3 |
| 28 | Interfacial active fluorine site-induced electron transfer on TiO<sub>2</sub> (001) facets to enhance polysulfide redox reactions for better liquid Li<sub>2</sub>S<sub>6</sub>-Based lithiumâ€“sulfur batteries. Journal of Materials Chemistry A, 2019, 7, 6431-6438. | 5.2 | 45 |
| 29 | Nitrogenated holey graphene C2N monolayer anodes for lithium- and sodium-ion batteries with high performance. Energy Storage Materials, 2019, 16, 574-580. | 9.5 | 100 |
| 30 | A facile and effective sulfur loading method: Direct drop of liquid Li2S8 on carbon coated TiO2 nanowire arrays as cathode towards commercializing lithium-sulfur battery. Energy Storage Materials, 2019, 17, 118-125. | 9.5 | 72 |
| 31 | Stabilization of two-dimensional penta-silicene for flexible lithium-ion battery anodes via surface chemistry reconfiguration. Physical Chemistry Chemical Physics, 2019, 21, 1029-1037. | 1.3 | 27 |
| 32 | All-silica zeolites screening for capture of toxic gases from molecular simulation. Chinese Journal of Chemical Engineering, 2019, 27, 174-181. | 1.7 | 12 |
| 33 | Capture of pure toxic gases through porous materials from molecular simulations. Molecular Physics, 2018, 116, 2095-2107. | 0.8 | 24 |
| 34 | Popgraphene: a new 2D planar carbon allotrope composed of 5â€“8â€“5 carbon rings for high-performance lithium-ion battery anodes from bottom-up programming. Journal of Materials Chemistry A, 2018, 6, 6815-6821. | 5.2 | 212 |
| 35 | Highly negative Poisson's ratio in a flexible two-dimensional tungsten carbide monolayer. Physical Chemistry Chemical Physics, 2018, 20, 18924-18930. | 1.3 | 42 |
| 36 | Adsorption, hydrogenation and dehydrogenation of C 2 H on a CoCu bimetallic layer. Surface Science, 2018, 671, 36-42. | 0.8 | 8 |

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|---|---|---|---|
| 37 | Semimetallic carbon honeycombs: new three-dimensional graphene allotropes with Dirac cones. Nanoscale, 2018, 10, 2748-2754. | 2.8 | 43 |
| 38 | Promoting polysulfide redox reactions and improving electronic conductivity in lithiumâ€“sulfur batteries via hierarchical cathode materials of graphene-wrapped porous TiO<sub>2</sub> microspheres with exposed (001) facets. Journal of Materials Chemistry A, 2018, 6, 16574-16582. | 5.2 | 47 |
| 39 | Tunable Primary and Secondary Encapsulation of a Charged Nonspherical Nanoparticle: Insights from Brownian Dynamics Simulations. Industrial & Engineering Chemistry Research, 2017, 56, 1646-1651. | 1.8 | 8 |
| 40 | Modulation of the electronic and mechanical properties of phagraphene via hydrogenation and fluorination. Physical Chemistry Chemical Physics, 2017, 19, 11771-11777. | 1.3 | 35 |
| 41 | Fracture behaviors of brittle and ductile 2D carbon structures under uniaxial tensile stress. Carbon, 2017, 111, 486-492. | 5.4 | 59 |
| 42 | Controlling Nanorod Oligomer Aggregation in Solutions. Journal of Physical Chemistry C, 2016, 120, 16913-16918. | 1.5 | 6 |
| 43 | Tunable thermal transport and mechanical properties of graphyne heterojunctions. Physical Chemistry Chemical Physics, 2016, 18, 24210-24218. | 1.3 | 49 |
| 44 | An experimental and theoretical study of dimethylaminostyryl BODIPY-perylenetetracarboxylic derivative dyads: synthesis, properties and DFT calculation. RSC Advances, 2016, 6, 23094-23101. | 1.7 | 10 |
| 45 | Selective adsorption of ethylene on bimetallic CuV+/0 (n= 1â€“5) clusters: A theoretical study. Computational Materials Science, 2016, 111, 489-496. | 1.4 | 11 |
| 46 | Large-Scale Molecular Simulations on the Mechanical Response and Failure Behavior of a defective Graphene: Cases of 5â€“8â€“5 Defects. Scientific Reports, 2015, 5, 14957. | 1.6 | 50 |
| 47 | Numerical evaluation and improvement efficiency of radial flow movingâ€bed reactors for catalytic pyrolysis of light hydrocarbons to low carbon olefins. Canadian Journal of Chemical Engineering, 2015, 93, 1033-1043. | 0.9 | 4 |
| 48 | Atomistic Modeling of Tripletâ€“Triplet Energy-Transfer Rates from Drug (S)-Propranolol to (R)-Cinacalcet in Human Î±<sub>1</sub>-Acid Glycoprotein. Journal of Physical Chemistry C, 2015, 119, 8014-8022. | 1.5 | 12 |
| 49 | Geometries and electronic properties of bimetallic CuVn (n=1â€“5) clusters and their cations: Insight from density functional calculations. Computational Materials Science, 2015, 102, 213-219. | 1.4 | 14 |
| 50 | Hydrated Ions: From Individual Ions to Ion Pairs to Ion Clusters. Journal of Physical Chemistry B, 2015, 119, 12671-12676. | 1.2 | 57 |
| 51 | Strength and failure behavior of a graphene sheet containing bi-grain-boundaries. RSC Advances, 2014, 4, 54677-54683. | 1.7 | 61 |
| 52 | Mechanical Properties and Failure Mechanisms of Graphene under a Central Load. ChemPhysChem, 2014, 15, 2749-2755. | 1.0 | 38 |
| 53 | Micellar Structures in Nanoparticle-Multiblock Copolymer Complexes. Langmuir, 2014, 30, 3723-3728. | 1.6 | 29 |
| 54 | Investigation of ternary ConCNâ¯1/0 (n = 1â€“5) clusters by density functional calculations. Dalton Transactions, 2014, 43, 5516. | 1.6 | 9 |

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|---|---|---|---|
| 55 | Nanomembrane Containing a Nanopore in an Electrolyte Solution: A Molecular Dynamics Approach. Journal of Physical Chemistry Letters, 2014, 5, 2979-2982. | 2.1 | 34 |
| 56 | Formation and Degradation of Multicomponent Multicore Micelles: Insights from Dissipative Particle Dynamics Simulations. Langmuir, 2013, 29, 5428-5434. | 1.6 | 47 |
| 57 | Periodical structural conversion and its mechanism in hematite: from nanospindles, to nanotubes, to nanotires. RSC Advances, 2012, 2, 1009-1013. | 1.7 | 21 |
| 58 | Self-assembly of Ï€-shaped copolymers. Soft Matter, 2012, 8, 1327-1333. | 1.2 | 28 |
| 59 | Density functional theory for the selective adsorption of small molecules on a surface modified with polymer brushes. Molecular Simulation, 2012, 38, 274-283. | 0.9 | 10 |
| 60 | Formation of complex colloidal particles: morphologies and mechanisms. Soft Matter, 2012, 8, 8911. | 1.2 | 17 |
| 61 | Prediction of band gap reduction and magnetism in (Cu, S)-codoped ZnO. Journal of Magnetism and Magnetic Materials, 2012, 324, 2153-2157. | 1.0 | 16 |
| 62 | A free-space density functional theory for polymer adsorption: Influence of packing effect on conformations of polymer. Journal of Chemical Physics, 2011, 134, 044713. | 1.2 | 3 |
| 63 | Aggregation of nanoparticles in a block copolymer bilayer. Journal of Colloid and Interface Science, 2011, 363, 573-578. | 5.0 | 29 |
| 64 | Relation between molecular orientation and morphology of a multiblock copolymer melt confined in cylindrical nanopores. Polymer, 2010, 51, 968-974. | 1.8 | 14 |
| 65 | Structure and particle aggregation in block copolymer-binary nanoparticle composites. Polymer, 2010, 51, 5869-5882. | 1.8 | 49 |
| 66 | Competitive Adsorption and Assembly of Block Copolymer Blends on Nanopatterned Surfaces. Langmuir, 2010, 26, 6663-6668. | 1.6 | 14 |
| 67 | Electrical Properties and Stability of Poly(N-isopropylacylamide-co-methacrylic Acid) Core-Shell Microgel. Journal of Dispersion Science and Technology, 2009, 30, 1281-1287. | 1.3 | 2 |
| 68 | The driving force of channel formation in triheteropolymers confined in nanocylindrical tubes. Journal of Chemical Physics, 2009, 130, 024901. | 1.2 | 8 |
| 69 | The structure of nanochannels formed by block copolymer solutions confined in nanotubes. Journal of Chemical Physics, 2009, 131, 114904. | 1.2 | 7 |
| 70 | Nanostructures Self-Assembled in Polymer Solutions Confined in Cylindrical Nanopores. Langmuir, 2009, 25, 12315-12319. | 1.6 | 19 |
| 71 | Nanoparticle aggregation in the presence of a block copolymer. Journal of Chemical Physics, 2009, 131, 244904. | 1.2 | 60 |
| 72 | Phase Equilibria, Morphologies of Microphase Separation, and Interfacial Structures of Polymer Systems Studied by Equations of State. Structure and Bonding, 2009, , 109-142. | 1.0 | 1 |

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|---|---|---|---|
| 73 | Adsorption of Copolymers in a Selective Nanoslit: A Hybrid Density Functional Theory. Journal of Physical Chemistry B, 2008, 112, 9568-9573. | 1.2 | 10 |
| 74 | Phase Equilibria, Morphologies of Microphase Separation, and Interfacial Structures of Polymer Systems Studied by Equations of State. Structure and Bonding, 2008, , . | 1.0 | 0 |
| 75 | Density functional theory for copolymers confined in a nanoslit. Journal of Chemical Physics, 2007, 126, 134903. | 1.2 | 17 |
| 76 | Assembly of Copolymer Blend on Nanopatterned Surfaces:â€‰ A Molecular Simulation Study. Langmuir, 2007, 23, 11112-11119. | 1.6 | 18 |
| 77 | Hybrid Density Functional Theory for Homopolymer Mixtures Confined in a Selective Nanoslit. Journal of Physical Chemistry B, 2007, 111, 5927-5933. | 1.2 | 22 |
| 78 | Recognition of Multiblock Copolymers on Nanopatterned Surfaces:Â Insight from Molecular Simulations. Langmuir, 2007, 23, 2430-2436. | 1.6 | 23 |
| 79 | Density functional theory of homopolymer mixtures confined in a slit. Journal of Chemical Physics, 2006, 125, 124705. | 1.2 | 31 |
| 80 | Density functional theory for the recognition of polymer at nanopatterned surface. Journal of Chemical Physics, 2006, 125, 204708. | 1.2 | 19 |