Special Issue

Recent Trends in High Electrocatalytic Performance of Two-Dimensional Materials

Message from the Guest Editors

Under the decline of fossil-fuel-based energy structure and increasing pollution, exploiting a new type of clean renewable energy storage and conversion systems becomes urgent, representing a great mission for material chemistry researchers. With the global boom in graphene ultrathin structure, 2D ultrathin solids have attracted significant interest and possess unrivaled structure superiority in electrocatalytic water splitting application, benefiting from their extremely high surface percentage, fast interfacial charge transfer, and facile electrochemical reactions. Emerging from these advantages, a wide variety of ultrathin nanosheets and regulating strategies have been developed and realized high efficiency performance among various electrocatalytic reactions (such as HER, OER, CO2RR, and NRR), which has also stimulated our understanding of intrinsic physical properties of electrocatalysts and electrocatalytic process. Therefore, this Special Issue will cover electrochemistry, solid state chemistry, material design, and chemical engineering and can appeal to a board readership engaged in the fields of chemistry, materials science, and energy conversion.

Guest Editors

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