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# Metal-Semiconductor Nanoheterostructures for Photocatalysis Application

Guest Editor:

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## **Message from the Guest Editor**

Dear Colleagues,

Photocatalysis offer an opportunity to produce renewable energy to replace fossil fuels. This Special Issue will provide an interdisciplinary platform for experts to interact and share their findings on a wide range of topics related to photoelectrochemistry and photophysics semiconductor nanostructures. The central theme covers the recent progress and scientific challenges of integrating light absorbers and catalysts into subsystems, with the goal of achieving water splitting, CO<sub>2</sub> reduction, environmental remediation, as well as solar fuel generation. On the other hand, an in-depth comprehension of charge carrier dynamics helps to ascertain the elements determining the carrier use efficiency, which is also crucial for the rational design of ideal photocatalyst systems.

Prof. Dr. Yung-Jung Hsu Guest Editor













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## **Message from the Editor-in-Chief**

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