

Editorial

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## Welcome to the new journal *Photocatalysis*

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Photocatalytic technology with decent characteristics and ideal photocatalytic performance has been regarded as an ideal and potential solution, and has become one of the most popular research domains because it demonstrates great capability to address the serious energy and environmental crisis without secondary pollution. Nevertheless, the application of most conductor photocatalysts is limited by a number of scientific insufficiency and shortcomings, such as low solar energy utilization, fast photo-induced charge carriers recombination, and low photocatalytic performance and quantum efficiency. The development of the photocatalysis will be of great significance for coping with these issues. Thus, numerous effort have been made by a large number of researchers nationally to enhance the utilization efficiency of solar light, photocatalytic activity and quantum efficiency of photocatalysts.

Photocatalysis needs that the photocatalytic materials possess suitable band structure, strong light absorption, large specific surface area, fast charge carriage transfer, and high quantum efficiency for wide practical application. The surface modification, doping with metal or non-metal elements, and band gap tuning of the photocatalysts are basic research strategies to enhance the photocatalytic capability of the photocatalysts. These approaches can somehow improve the light absorption, enhance the oxidation and reduce ability of the photo-induced charge carriers, but the interfacial charge mobilities as well as the photocatalytic quantum efficiencies of the photocatalysts remain low and unsatisfactory. Developing and designing efficient photocatalysts with strong light absorption, accelerated charge separation and high quantum efficiency is of great significance.

This journal aims to serve as a recognised platform for disseminating crucial, timely, and far-reaching research results as well as establishing a broad forum for fostering vital discussions in the area of



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photocatalysis. The journal's mission is to bring the research community and practitioners the most promising and groundbreaking research, innovative concepts, best practices, and insightful studies. Authors are welcome to publish their high-quality research in photocatalysis. We firmly believe that the new journal *Photocatalysis*, as a truly interdisciplinary publication, will contribute to the advancement of a new tool in the box of materials R&D, and serve as the footstone for the future development of this interdisciplinary field.

## **DECLARATIONS**

### **Authors' contributions**

The author contributed solely to the article.

### **Availability of data and materials**

Not applicable.

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None.

### **Conflicts of interest**

The author declared that there are no conflicts of interest.

### **Ethical approval and consent to participate**

Not applicable.

### **Consent for publication**

Not applicable.

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