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conference on semiconductor photochemistry –
Introduction by guest editors**

Nicolas Keller, Fernando Fresno, Sixto Malato, Frank Osterloh

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Preface.

Selected contributions from the 8th International conference on semiconductor photochemistry – Introduction by guest editors

This Special Issue collects 14 contributions selected from the communications to the 8th International Conference on Semiconductor Photochemistry (SP8), held in Strasbourg, France, on September 11–15 2023. Launched in 2001 in Glasgow by Prof. Andrew Mills, the SP conference series progressively gained its renown over the last 20 years among the most relevant meetings in semiconductor photochemistry and photocatalysis by travelling around Europe, being hosted in Aberdeen (2007), Glasgow (2010), Prague (2013), Saint Petersburg (2015), Oldenburg (2017), Milan (2019), and Strasbourg in 2023 after a two-year delay caused by the COVID-19 pandemic.

210 researchers from more than 35 countries attended SP8 in Strasbourg, with contributions covering different topics related to semiconductor photochemistry: solar fuels and chemicals; new materials; photochemical reaction engineering; air and water remediation; *operando* and *in situ* characterization; functionalized and self-cleaning surfaces; modelling and mechanistic studies; and solar to electricity conversion.

The SP8 program included 6 plenary lectures by Profs. R. Van de Krol, P. Fornasiero, J. Strunk, W. Choi, M. Bowker and E. Reisner and 5 keynote lectures by Profs. M. V. Dozzi, L. Wong, S. Verbruggen, M. Seifner and T. Le Bahers. In addition, the latest research results of the participants' groups were presented in 54 oral communications and 175 posters. Among the latter, 34 communications were selected for flash oral presentations given by PhD students and young postdoctoral researchers.

For the first time in the SP series, SP8 was preceded by a topical school attended by more than 80 PhD students and young researchers, in which Profs. E. Selli, F. E. Oropeza, T. Le

Bahers, V. Caps, M. El-Roz, M. Seifner and J. Bloh reviewed the basics of semiconductor photochemistry and its applications, as well as useful techniques for the characterization of semiconductors and the measurement of their performance in photocatalytic and photoelectrochemical reactions.

The collection of articles included in this special issue is not exhaustive, but covers various fields of interest discussed in SP8 related to catalysis: photon-activated processes for the production of fuels and energy vectors [1–4], synthesis of new materials [5–8], water and air remediation [9,10], and photocatalytic or photoelectrochemical synthesis [11–14].

The guest editors would like to thank the authors contributing to this special issue, as well as the reviewers for their indispensable and publicly unnoticed work. Special thanks should be given to the members of the Scientific Committee of the SP series for their support and their active promotion of SP all over the world. Finally, the Chair and co-Chair of SP8 would like to thank all the attendees, authors, presenters and exhibitors, and especially the set of conference sponsors, the local organizing committee and the technical secretariat by *Cellule Congrès - Formation* at the University of Strasbourg, for making SP8 possible.

Nicolas Keller, SP8 Chair;

Fernando Fresno, SP8 co-Chair;

Sixto Malato, SP Scientific Committee;

Frank E. Osterloh, SP Scientific Committee.

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