



## Photo-Induced Electron Transfer Kinetics in Catalysis

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### Message from the Guest Editors

Electron transfer processes are of outstanding importance in various natural systems as well as in countless artificial applications. Biological electron transfer chains of metalloporphyrins and their derivatives, for example, guide photo-generated charges efficiently towards the catalytic site in the photosynthesis process. In various optoelectronic applications, on the other hand, photo-induced charge transfer phenomena are of paramount importance and initiate. Beyond photovoltaic applications, light-harvesting inspired by nature aims to generate high energy compounds by utilizing a unidirectional photo-induced energy and subsequent charge transfer to relocate one or multiple electrons towards a catalytically active site, where reduction leads to formation of molecular hydrogen or other high energy compounds.

This Special Issue aims to cover recent progress and advances in the field of electron transfer kinetics in photocatalysis. This topic covers experimental and theoretical studies to elucidate the dynamics of (light-driven) electron and energy transfer processes in biological as well as artificial light-harvesting systems.

