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Development of Photocatalytic Processes for Air Pollution Remediation and Fuels Production

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Message from the Guest Editors

In addressing the most pressing issues of the 21st century, namely environmental pollution remediation and alternative fuel production, photocatalysis represents a powerful technology to exploit light radiation to obtain strategic products for the economies of today and tomorrow. There is a wide range of possible approaches that can be pursued, either organic or inorganic pollutant oxidation for air quality remediation or solar fuel production from waste biomass or CO_2-rich flue gases. Within heterogeneous photocatalysis, the most promising, yet challenging, strategy is to design materials for specific processes, the possible great potential has not yet been achieved yet.

The aim of this Special Issue is to provide insight on cutting edge photocatalytic technologies, focusing on the most important on innovative solutions for efficient photocatalytic pollutant abatement and fuel production. Photocatalysts, the key component of this technology, and process design need to be designed according to each reaction's specific needs, finding the best way to solve them.

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Special Issue