



## Application of TiO<sub>2</sub> Nanotube in Electrocatalysis/Photocatalysis

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### Message from the Guest Editors

Electrocatalysis plays a pivotal role in the fields of wastewater treatment and energy conversion devices like batteries, fuel, and solar cells, while photocatalysis deals with the removal of environmental pollutants and green energy production.

Of paramount importance is the use of suitable catalyst materials that fulfill a list of requirements, like biological and chemical inertness, suitable bandgap, low cost and nontoxicity, long term stability, high mobility of charge carriers, and the predictable correlation between physical and photo/electrochemical properties. TiO<sub>2</sub> is by far the most explored material, research around its properties spans over more than four decades and, recently, its structuration in the form of nanotubes has gained substantial interest. Both experimental and theoretical research findings dealing with the synthesis and tailoring of properties of TiO<sub>2</sub> nanotubes through various techniques (heat treatment, doping, tube decoration, etc.), and their application in electrocatalysis and photocatalysis are of prime importance for this Special Issue.

