

Special Issue on
**Advances in Photo and Electrical Chemistry for
Treatment of Pollutants**

CALL FOR PAPERS

Environmental pollution remains a global problem, especially in developing countries. A large quantity of emerging and refractory pollutants is discharged into water, air, and soil every year. Microbial pollutants, such as viruses and bacteria, have historically also caused serious human disasters. Even today, pollution is still one of the biggest factors endangering human health. Traditional pollution control technologies have many problems, such as low efficiency and high energy consumption, and are often uneconomical.

Photo and electrical chemistry involve the use of light, electricity, or chemical species that are generated by photo and electrical processes to induce chemical reactions. Photochemistry, electrochemistry and plasma chemistry are the typical disciplines that utilize photo and electrical chemical processes.

In photo and electrical chemical reactions, photons, electrons, ions, radicals, and excited molecules are generated easily. These active species have high energy and high chemical reactivity and can directly destroy the chemical bonds within the pollutant or microbial cells. As a result, technologies based on photo and electrical chemical effects can be used for degradation of pollutants and sterilization and are characterized by their high efficiency and strong processing capacity, as well as being relatively simple and easy to combine with other processes, especially catalysis. Thus, photo and electrical process that induce the degradation and sterilization of pollutants and their applications are hot topics for environmental research.

This special issue aims to attract original research papers and review articles, which report on recent advances in the treatment of emerging and refractory pollutants by photo and electrical process. Articles that highlight indoor air purification and environmental disinfection and sterilization with photo and electrical process are also welcome.

Potential topics include but are not limited to the following:

- ▶ Photocatalysis or electrocatalysis for the remediation of pollutants
- ▶ Electrochemistry for the remediation of pollutants
- ▶ Plasma catalysis for the remediation of pollutants
- ▶ Photo and electrical process for the purification of indoor air
- ▶ Photo and electrical process for the sterilization of pollutants

Authors can submit their manuscripts through the Manuscript Tracking System at <https://mts.hindawi.com/submit/journals/jchem/environmental.chemistry/aippee/>.

Papers are published upon acceptance, regardless of the Special Issue publication date.

Lead Guest Editor

Fada Feng, Jiaying University, Meizhou, China
fadafeng@jyu.edu.cn

Guest Editors

Yifan Huang, Chinese Academy of Sciences, Shenzhen, China
yf.huang@siat.ac.cn

Haibao Huang, Sun Yat-sen University, Guangzhou, China
huanghb6@mail.sysu.edu.cn

Carlos A. Martínez-Huitle, Universidade Federal do Rio Grande do Norte, Natal, Brazil
carlosmh@quimica.ufrn.br

Mehrab Mehrvar, Ryerson University, Toronto, Canada
mmehrvar@ryerson.ca

Submission Deadline

Friday, 29 November 2019

Publication Date

April 2020