

Tentative Outline

Special Thematic Issue for the journal *Current Analytical Chemistry*

Carbon materials for functional applications

Guest Editors: Chongqing Wang

• **Scope of the Thematic Issue:**

The thematic issue focuses on carbon materials for functional applications, such as environmental remediation and energy. Carbon materials receives increasing attention due to outstanding properties and abundant resources. Progressive research interests focus on synthesis of functional materials using abundant bio-wastes. Carbon materials derived from bio-wastes benefit management of solid wastes and realize their high-value application. Currently, innovative and attractive efforts are imperative to develop excellent materials. The Guest Editors of this proposal, welcome contributions with topics include but are not limited to the followings.

- (i) the mechanism of carbonization process;
- (ii) design and synthesis carbon-based functional materials;
- (iii) rational regulation of properties of carbon materials;
- (iv) innovative application for environmental remediation;
- (v) high-performance catalysis or energy application.

Keywords: bio-wastes; carbon materials; carbonization; functional application; environmental remediation; surface modification.

Sub-topics:

The sub-topics to be covered within the issue should be provided:

- Biochar
- Environmental remediation
- Energy materials
- Catalysis.

Tentative titles of the articles and list of contributors:

Tentative titles of the articles and list of contributors with their names, designations, addresses and email addresses are listed below.

Advances in carbon materials for functional application: a review, Chongqing Wang, Doctor, School of Chemical Engineering, Zhengzhou University, Zhengzhou 450001, China, zilangwang@126.com.

Facile synthesis of amino-functionalized carbon nanoparticles and their dispersion in graphene oxide, Michail Samouhos, Doctor, School of Mining and Metallurgical Engineering, National Technical University of Athens, 9 Iroon Polytechniou, 15771, Greece, msamouhos@metal.ntua.gr.

Superior activity of metal oxide biochar composites in hydrogen evolution under artificial solar irradiation, Francesco Di Maria, Doctor, Department of Engineering, University of Perugia, Via G. Duranti 67, 06125, Perugia, Italy, Francesco.dimaria@unipg.it

Synthesis of hierarchical N-doped carbon encapsulated NaTi₂(PO₄)₃ microflower with excellent lithium storage performance, Zhangxing He, Doctor, School of Chemical Engineering, North China University of Science and Technology, Tangshan 063009, China, zxhe@ncst.edu.cn.

Catalytic conversion of *Chlorella vulgaris* over biochar-supported Fe catalysts, Ahmad Tavasoli, Doctor, School of Chemistry, College of Science, University of Tehran, Tehran, Iran, tavasoli.a@ut.ac.ir.

Modified carbon materials for wastewater treatment: a review, Gonggang Liu, Doctor, Central South University of Forestry and Technology, China, liugonggang@csu.edu.cn.

Overview of biochar production from preservative-treated wood, Young-Kwon Park, Doctor, School of Environmental Engineering, University of Seoul, Seoul, 02504, Republic of Korea, catalica@uos.ac.kr.

The catalytic performance of porous carbon loaded CuO nanocrystal, Jianliang Cao, Doctor, School of Materials Science and Engineering, Henan Polytechnic University, Jiaozuo, 454000, China, caojianliang@hpu.edu.cn.

Modified biochar for the efficient adsorption of Cu²⁺ and Ni²⁺ ion from water, Sudarsan Neogi, Doctor, Department of Chemical Engineering, Indian Institute of Technology Kharagpur, Kharagpur, West Bengal, 721302, India, sneogi@che.iitkgp.ernet.in.

Schedule:

✧ Thematic issue submission deadline: 2020.12.30

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