

# Tentative Outline

## Special Issue for Current Analytical Chemistry

### Green Chemistry for CO<sub>2</sub> Capture and Utilization

*Guest Editors:* Dr. Mashallah Rezakazemi, Dr. Inamuddin, Dr. Suvadhan Kanchi, Dr. Mohammad Jafar Molaei

#### *Aims & Scopes:*

Green chemistry is a platform to decrease the use or generation of hazardous compounds such as CO<sub>2</sub> in the design, preparation and applications of products. It is essential to drastically cut CO<sub>2</sub> emissions to reduce global warming. Hybrid solutions will be needed to meet the target of limiting the overall increase in global temperature to below 2 °C by 2100: CO<sub>2</sub> capture and utilization storage (CCU), enhanced energy efficiency, and development of renewable energies. CCU will avoid the emission of 8.2 billion tons of CO<sub>2</sub> between now and 2050, representing 19% of the reduction needed. The implementation of capture technologies is therefore crucially important in terms of protecting the world's climate...

This special issue is intended to present a novel, high quality, original research articles as well as review articles/short communication/letters focused on green chemistry for CO<sub>2</sub> capture and utilization. The main purpose of this special issue is to build a platform for engineers, scientists, and practitioners around the world to present their latest advances in CO<sub>2</sub> capture and utilization.

#### Subtopics:

The subtopics to be covered within this issue are listed below:

1. CO<sub>2</sub> separation technologies including absorption, adsorption, or membrane gas separation and etc.
2. Development of environmentally advanced methods, synthetic techniques and processes to CO<sub>2</sub> capture and conversion to value-added products
3. Design of novel, greener and safer compounds from CO<sub>2</sub>
4. Design, synthesis, and performance assessment of different catalysts and processes for CO<sub>2</sub> conversion to value-added products;
5. Computational and numerical simulation used in the CO<sub>2</sub> capture and utilization;
6. Engineering of nanomaterials and processes with reduced CO<sub>2</sub> footprints.

#### Schedule:

- Manuscript Submission Sept 1, 2019
- Peer Review Due: Nov 31, 2019
- Revision Due: Dec 30, 2019
- Final Manuscript Due: Jan 30, 2020
- Notification of Acceptance by the Guest Editor: Jan 30, 2020

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