

Tentative Outline

Special Issue for Current Analytical Chemistry

Electrochemical sensors based on Metal nanoparticles, carbon based Nanomaterials and ionic liquids

Guest Editor: Hassan Karimi-Maleh

Aims & Scope:

Recently, metal based nano-materials have also been incorporated into electrochemical sensors for biological and pharmaceutical analyses. While they have many properties similar to other types of nanomaterials such as carbon nanotubes, they offer unique advantages including enhanced electron transfer, large edge plane/basal plane ratios and rapid kinetics of the electrode processes [10–18]. In between, metal oxide is an important multifunctional material with applications such as varistors, gas sensors, SAW devices, transparent electrodes and catalysts. The various applications of metal based nano-materials are due to the specific chemical, surface and microstructural properties of this material.

The scope of this Issue focuses on the strategies for determination of electroactive compounds such as drug, environmental and pollutant compounds using modified electrode with metal based nano-materials. On the other hand, theoretical investigation of metal based compounds in sensor investigation is other focus of propose Issue.

Subtopics:

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

- **Synthesis of metal based nanoparticles and its application in voltammetry**
- **Electrochemical sensor for drug analysis**
- **DNA based nanomaterial sensor**
- **Theoretical investigation of electrochemical sensor modified with metal based nanoparticles**
- **Ionic liquids modified electrodes for voltammetric sensor**

Schedule:

- Manuscript Submission January 10, 2016
- Peer Review Due: January 20, 2016
- Revision Due: January 30, 2016
- Notification of Acceptance by the Guest Editor: February 1, 2016
- Final Manuscript Due: February 5, 2016

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