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## Editor Note

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## Volume 2 Issue 1

The articles published recently in Trends in Green Chemistry embrace interesting topics.

One paper is on liquid fuels and highly valuable fine chemicals, which are derived from petroleum resources these days, but can be produced very effectively from biomass via platform 5-hydroxymethylfurfural (HMF) and 2,5-furandicarboxylic acid (FDCA) via suitable catalytic processes. Biomass hides a lot of valuable of monomeric bioresources, such as glucose and fructose, dimeric sucrose, and also polymeric carbohydrates, like starch, cellulose, inulin and other carbohydrates. The purpose also may be to prepare liquid energy fuel.

Another article deals with the production of activated carbon from natural sources. Activated carbon used as an adsorbent in the separation and purification industries may be produced from low-cost materials, such as agricultural wastes involving chemical or physical activation methods, and microwave radiation.

Two papers are on the utilization of several plants as natural sources to obtain useful compounds for medicinal purposes and for the treatment of human diseases. This approach is much better from green chemical point of view, than synthesizing the target molecules. Twenty plants were evaluated for alkaloid, flavonoid, cardiac glycoside, saponin, tannin, triterpenoids and phlobatannin content.

On the other hand, *Tinospora cordifolia* or giloe is used in medicines for the treatment of many diseases, as they exert an in vitro and in vivo cytotoxic effect.

Remaining with green chemical approaches, the microwave tool is a valuable possibility in enhancing reluctant reactions, or just making the reactions more efficient regarding rate and selectivity. The related review paper summarizes interesting examples from organophosphorus chemistry, including P-esterifications, transesterifications, the Kabachnik-Fields condensation, the Pudovik reaction, C-alkylations and deoxygenations.

Another paper explores the possibilities to find low-cost, less-toxic efficient and eco-friendly catalysts that are of utmost importance in green chemistry. Such is sodium formate that

can be used as a suitable catalyst in a wide range of organic transformations.

Remaining with catalysts, the selective blockage (poisoning) of catalysts including nickel supported on silica and Raney nickel was investigated on model compounds with C=C unsaturation or NO<sub>2</sub> group in different solvents.

Another paper describes the production of transparent bio-based polymeric materials by the acid-catalyzed curing of epoxidized soybean oil (triglyceride) in the presence of rosin derivative. The incorporation of the rosin components improved the thermal properties, and the increased elongation at break. The adhesion properties were also good.

Showing the broad scope of the Journal "Trends in Green Chemistry", an article appeared on the effect of biopolishing on the dye ability of cotton fabric. This operation involves a treatment with cellulase, and has an impact on the color yield.

The subject of a recent article is in connection with flotation. Since many years, various particulate solids have been obtained by using the gravity separation method gaining interesting applications e.g. the treatment of wastewater. The paper discusses the physicochemical background of flotation including the role of bubble and particle size.

Two other articles from the same author deal with the environmental concerns of the industry of developing countries. India today is one of the fastest growing economies, and there is an urging necessity that environmental and energy sustainability moves at a rapid pace. The message of environmental catastrophes and industrial disasters should be re-considered, and the fact of industrial pollution needs to be readdressed. A critical question is the provision of drinking water and arsenic groundwater remediation in South Asia, India and China.

The above articles published so far in Trends in Green Chemistry provide a good example, what the scope of this new journal is. The stress is on up-to-date and green synthetic procedures that are selective and efficient. This is often associated with microwave and sonochemical activation. The elimination of harmful organic solvents, and their replacement by greener ones (e.g. ionic liquids, water and supercritical liquids) is also an important issue. Solvent-free and solid phase syntheses are also gaining increasing interest. The

development and application of green catalysts are also challenging fields. Any other aspects (e.g. enantioselective procedures, extraction of natural products, production of chemicals from biomass and wastes, green analytical

techniques, green biotechnology and the problem of sustainability) relevant to environmentally-friendly chemistry are welcome. Please help us to develop the new journal Trends in Green Chemistry.