Editorial

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As for the previous issues of the journal, this issue is composed of diverse and original contributions that address both biomass and waste valorization.

Baratieri et al. address the biomass gasification with dolomite as catalyst in a small fluidized bed. Biomass gasification tests were performed to assess the dolomite effect on the syngas and tar composition. The results obtained have been used to tune up an equilibrium model. This model has been modified with some experimental data and predicts with good accuracy the syngas composition. Catalytic process for fuel production is addressed by Kubickova et al. in a review dealing with the utilization of triglycerides and related feedstocks for production of clean hydrocarbon fuels and petrochemicals. Deoxygenation of triglycerides and related feedstocks, both selective and nonselective, is considered for the production of biofuels to provide high-quality hydrocarbon-based fuels. A catalytic cracking of triglycerides and related feedstocks over microporous and mesoporous catalysts is also discussed in this paper and seems to be promising. Panwar suggests a study on the evaluation of performance for a domestic cooking stove using jatropha shell. The results point out various benefits including the reduction of human exposure and that of greenhouse gases emission. Muhammad et al. present a study on the thermal degradation of ionic liquid regenerated cellulose. An ionic liquid was found to reduce the activation energy for the thermal degradation of the regenerated cellulose by increasing the material activity. The results showed that the regenerated material exhibited better homogeneity in microstructure. The utilization of

ionic liquids is gaining momentum and the application for biomass treatment seems promising. Stival Bittencourt et al. evaluated the morphology changes for lignin modified with formic acid. They demonstrated that the UV radiation effect, estimated by comparison between irradiated and non-irradiated samples with the same compositions, was reduced in systems containing modified lignin.

Inorganic and waste materials are also addressed in this issue. Herrero et al. investigate a hydrometallurgical processes development for zinc oxide production from Waelz oxide with a two stage process. This process includes a liquor preparation through a lixiviation stage and oxidation and cementation steps followed by a precipitation of the resulting Zinc oxide. The final step is the calcination of the precipitated solid. A study on recovery of precious metals by selective adsorption on dimethylamine-modified persimmon peel is proposed by Xiong et al. The results showed that the dimethylamine-modified persimmon peel gel was effective for the selective adsorption of Au(III), Pd(II) and Pt(IV) in hydrochloric acid medium. In contrast, base metals such as Cu(II), Zn(II), Fe(III), Ni(II) were almost not adsorbed on the gel. They concluded that use of persimmon waste, which virtually costs nothing, for recovering gold, platinum, and palladium would be an inspiring breakthrough for precious metals recycling from city, mine or e-waste.

Melita et al. present a study on transport of vanadium (V) and nickel (II) from wastewater using activated composite membranes. It has been shown that the activated composite membranes separation was selective for these metals and efficiently removed Vanadium V(V). Such selectivity is based on the difference in the dynamic behaviour of the metal ions transported with the material.

The three last papers of this issue of the journal address the characterization of various waste materials. Research

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on the preparation and Characterization of Composite Sheets from Collagenous and Chromium-Collagen complex wastes using polyvinylpyrrolidone (PVP) is proposed by Ashokkumar et al. The study demonstrated that the thermal stability of the formed composite sheets increases significantly as the concentration of PVP increases. These results demonstrate the homogeneity of the developed composite sheets. The obtained results suggest that the PVP containing composite sheets have improved characteristics and hence are suitable for numerous applications in footwear, clothing and related industries. Bezati et al. discuss the elaboration and characterization of polypropylene spiked with trace rare earth oxides for automatic identification and sorting of end-of-life plastics. This research work demonstrated the technical feasibility of the

detection of tracers dispersed in the PP matrix through the use of X-ray fluorescence spectrometry. The tracer system and detection technique used can provide specific and positive identification, versatility, efficient sorting, high speed identification, high purity of the sorted fraction, and solutions for dark plastics segregation. Fly ash based geopolymer were investigated by Duchesne et al. using the Environmental scanning electron microscopy They report here the results of the Microstural study.

We hope readers of the journal will enjoy the diversity of the present issue and appreciate the multidisciplinary themes exposed and gain knowledge in fields parallel to their expertise. With your continued help, we will endeavor to cover all the topics of interest to a better understanding of society's needs in waste treatment.