



## Editorial to thematic issue “Deep Eutectic Solvents in Biomass Conversion”

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Green solvents that tackle issues related to health, safety, and the environment have been the focus of many researchers in recent years. Alternative to conventional solvents, new designer solvents such as deep eutectic solvents have been proposed recently having the characteristics of green chemicals. Such deep eutectic solvents are composed of two or more chemicals (a hydrogen bond acceptor and a hydrogen bond donor) forming a eutectic mixture at a certain molar ratio. They possess the promising solvent properties of ionic liquids, such as low viscosity, low melting point, low volatility, high thermal stability, high conductivity, high surface tension, non-toxicity, and biocompatibility. In addition, deep eutectic solvents have superior properties over traditional ionic liquids such as their ease of synthesis and wide availability from relatively inexpensive components. These remarkable properties make them well suited to be utilized in biomass conversion.

This thematic issue of “Biomass Conversion and Biorefinery” highlights recent progress in biomass conversion in regards to the integration of deep eutectic solvents. It provides a comprehensive perspective on recent developments and challenges. The articles contained within the thematic

issue includes applications of deep eutectic solvents in pre-treatment of biomass, extraction of valuable compounds, conversion processes (e.g. as catalyst, co-solvent, extracting solvent), downstream processing (e.g. CO<sub>2</sub> separation from syngas), and nanocomposite production. In addition, recovery and recycling techniques of deep eutectic solvents in biomass conversion processes have been reviewed.

We hope that the readers of the journal “Biomass Conversion and Biorefinery” will find the articles enlightening and inspiring for their future research. I would like to express my deepest gratitude to the authors of the articles for submitting their valuable work to this thematic issue and also to reviewers who have provided valuable comments to improve the quality of this issue. Finally, I would like to thank the editorial team for their guidance and support in preparing this thematic issue.

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