

## Green and Sustainable Chemistry using Ionic Liquids and Deep Eutectic Solvents

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*Solvents have to play an important role in various chemical reactions. Sometimes the outcome of a chemical reaction can be controlled and fine tuned by changing the nature of solvent. The understanding of solvent effects is required by a chemist. However, the selection of a suitable solvent for a chemical reaction is not an easy task. We have to take care for physical and chemical properties of both the solvent and the solutes while making selection of suitable solvent for a particular reaction. Cost and environmental impact of the chosen solvent needs to be taken in account during the development of a chemical process for manufacturing purposes. Although any liquid may be used as a solvent, relatively few are in general use. However, as the introduction of cleaner technologies has become a major concern throughout both industry and academia, the search for alternatives to the most damaging volatile organic solvents has become a high priority. The idea of “green” solvents expresses the goal to minimize the environmental impact resulting from the use of solvents in chemical production. To achieve the same goal, we are using ionic liquids and deep eutectic solvents as new and alternative solvents media for proton transfer, dye aggregation and removal of dyes from aqueous solutions. Our recent results indicate that ionic liquids and deep eutectic solvents have unique role in affecting the excited state prototropism, controlling dye aggregation and removal of various dyes from water.*

### **References**

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