**9th Conference of Young Chemists of Serbia**

# Book of Abstracts

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## Contents

**SCFM PP 06**

# Selection of deep eutectic solvent as a modifier of molecular imprinted polymer for aniline sorption

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Deep eutectic solvents (DESs) have been recognized as promising solvents due to their purity, high conductivity, bio-degradability, thermal stability[1]. These environmentally friendly solvents are important tools in the creation of green and sustainable technologies. The use of DES in polymer science is highly promising for the development of novel green materials. Therefore, DESs have been used in molecular imprinting in order to improve the properties of molecularly imprinted polymers (MIP). DES are most often prepared by combining two classes of compounds: hydrogen bond donor, HBD (such as amide) and hydrogen bond acceptor, HBA (such as quaternary ammonium salt) in different molar ratios[2]. By mixing these components in with appropriate molar ratios, eutectic mixtures are formed in a liquid state at temperatures below 100 °C. This study reports the ability of DES-MIP as a sorbent for the removal of aromatic amine from plastic packaging. In order to obtain the most effective sorbent, DESs are prepared by combining choline chloride as HBA with different HBDs, such as urea, glycerol, and ethylene glycol. The results showed that choline chloride:urea was the most suitable DES as modifier of MIP.

**References**

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