

Title: Natural Deep Eutectic Solvent-Integrated Sensors: Emerging Trends and Sustainable Solutions for Pharmaceutical Sensing

Author names: Subash C B Gopinath, Sing-Mei Tan, Jia-Chun Lim, Narendra B Patil Mahendra R Mahajan², Amol R Pawar, Sanjaykumar B Bari, Pravin O Patil, Sujal Shaha, Gargi Patil

Abstract: Natural deep eutectic solvent (NaDES) has emerged in green chemistry as an eco-friendly and sustainable alternative to conventional organic solvents. Leveraging the desirable properties of NaDES, recent efforts have been devoted to developing their use in sensors and sensor performance enhancement. This review focuses on recent advancements in NaDES-based sensor technology and its applications in pharmaceutical sensing. The preparation methods and chemical interactions within NaDES are introduced. The synthesis of nanomaterials for sensors in NaDES is also addressed in detail, highlighting their role in material design and sensor performance. Besides, future directions with NaDES-integrated sensors for pharmaceutical sensing are discussed. Overall, this review provides insights into NaDES-integrated electrochemical sensors for sustainable pharmaceutical detection.

Keywords: Electrochemistry; green chemistry; green solvent; pharmaceuticals; sensing.

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