



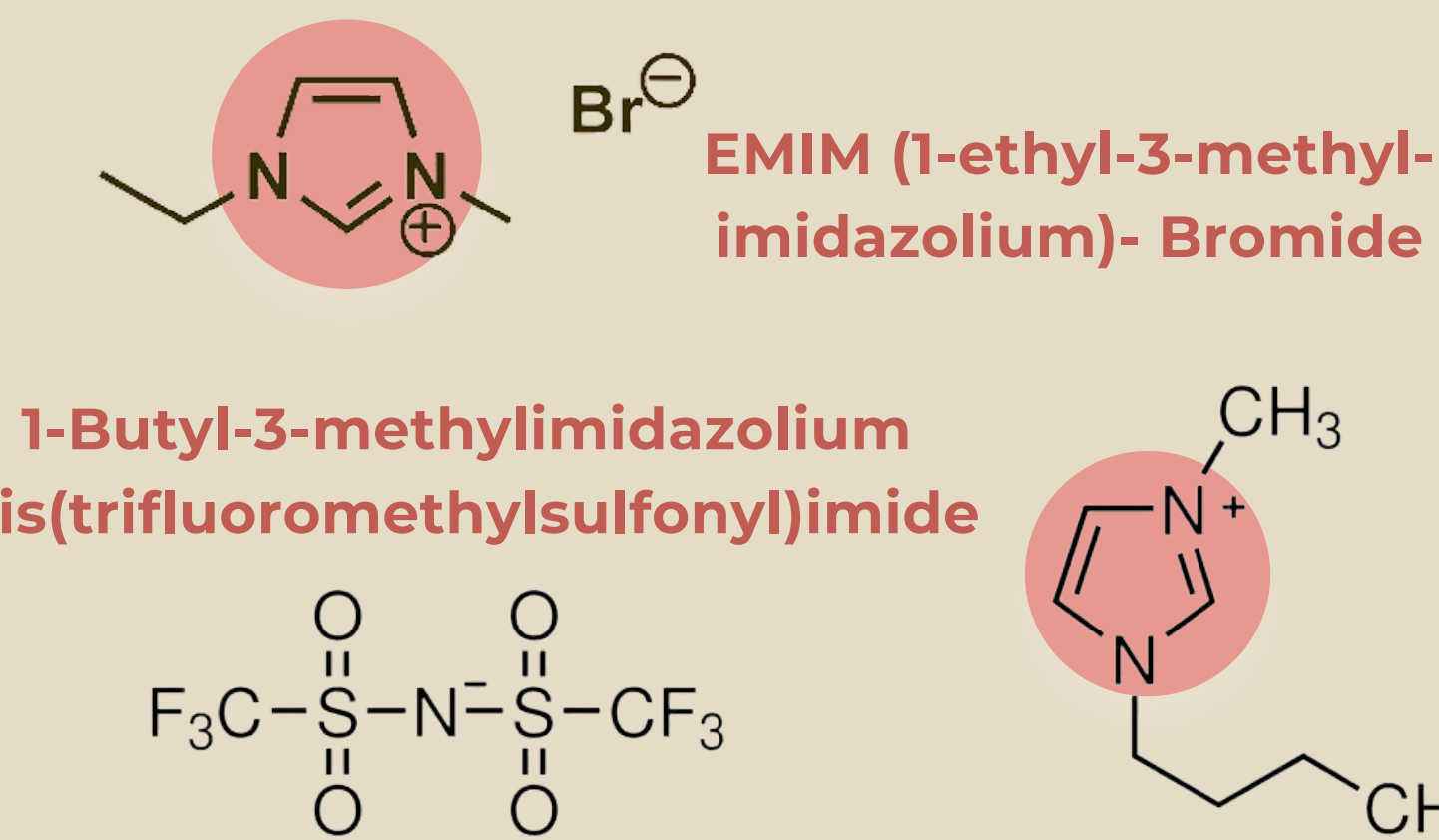
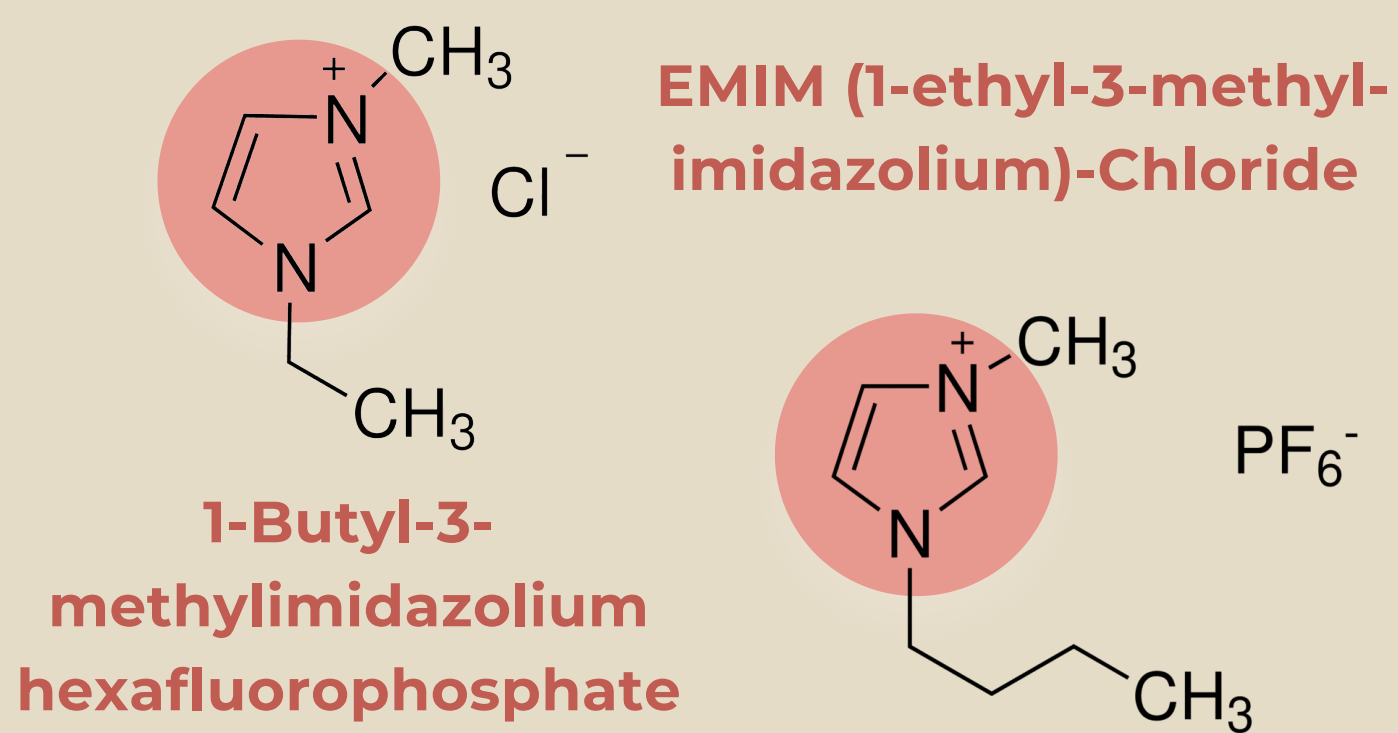
A REVIEW OF ROOM TEMPERATURE IONIC LIQUIDS: SYNTHESIS AND APPLICATIONS

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COMMON RTILS

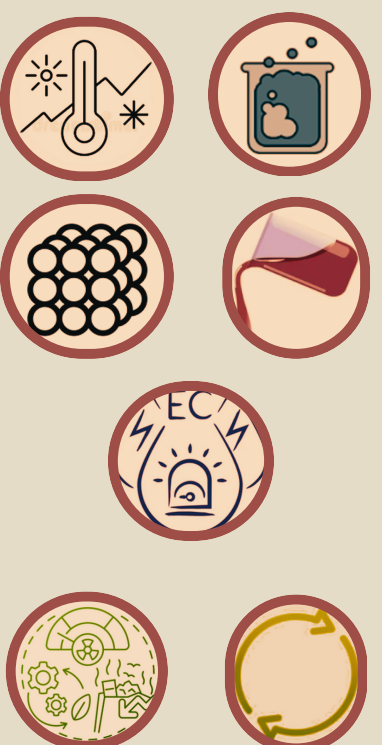


INTRODUCTION

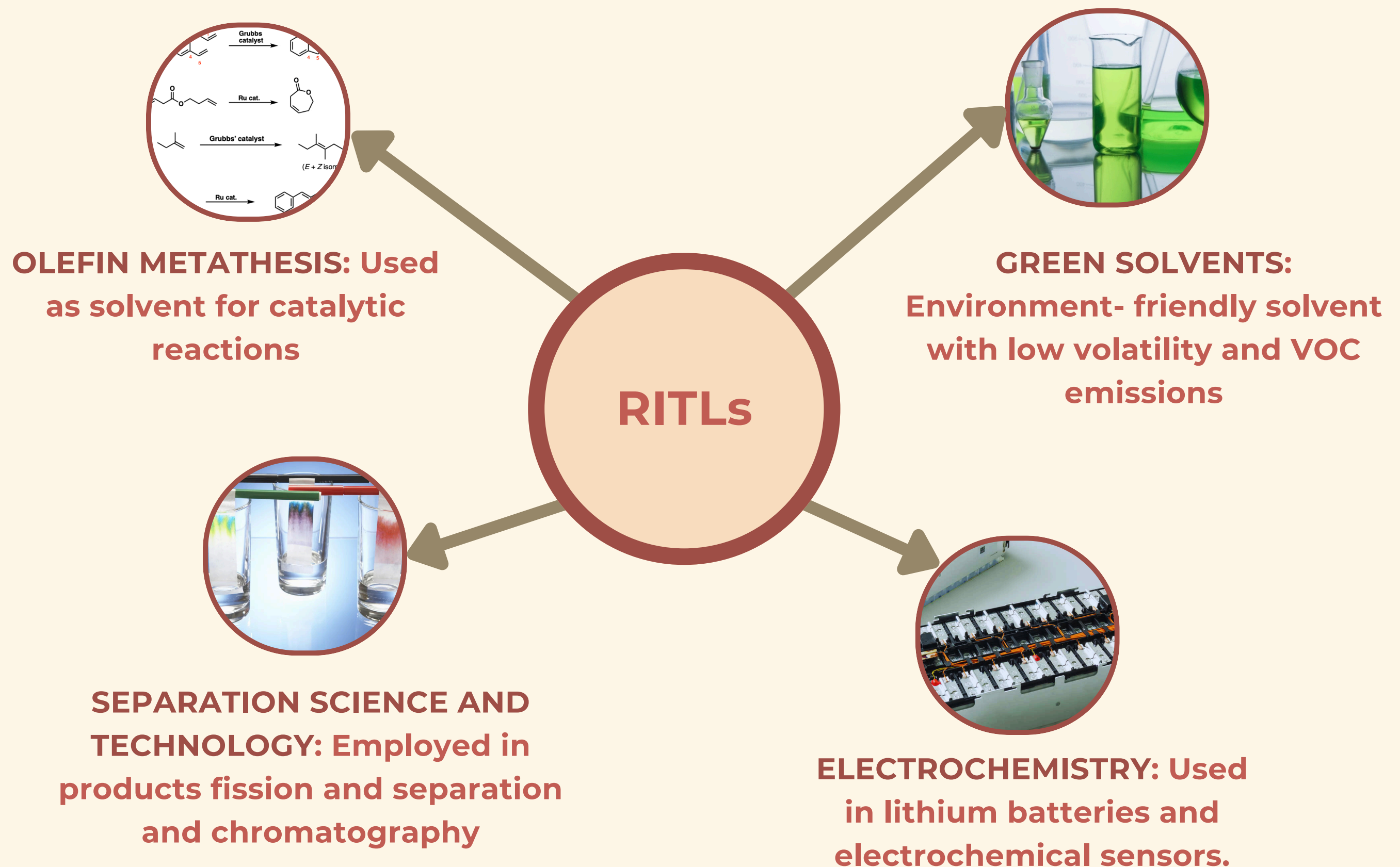
Room Temperature Ionic Liquids (RTILs) are ionic compounds that remain liquid at temperature below 100 degrees Celsius. In this paper, the applications of RTILs as a possible sustainable alternative to traditional solvents which may lessen environmental and health hazards was investigated.

FUNDAMENTAL PROPERTIES

- High Chemical and Thermal Stability
- High Density and Viscosity
- Low Electrical Conductivity
- High Reusability and low Toxicity

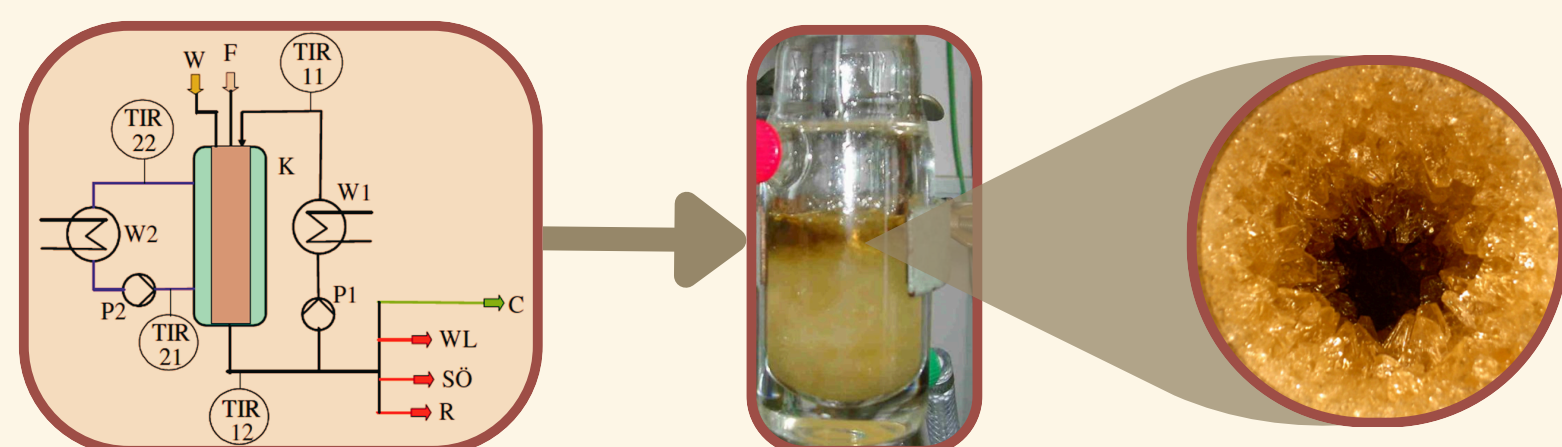


APPLICATIONS OF ROOM TEMPERATURE IONIC LIQUIDS

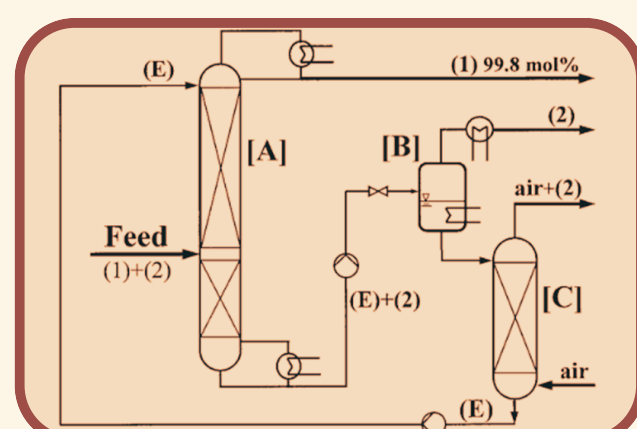


PURIFICATION AND RECOVERY TECHNIQUES

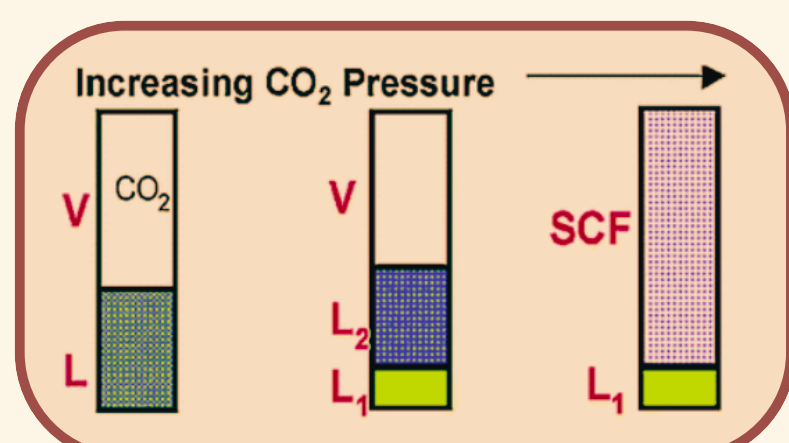
Crystallization: Effective for high-purity recovery



Distillation: Used in separating volatile components



Extraction: Recovers RTILs from solutions like supercritical CO₂



RESEARCH GAPS

- High Cost
- Limited Information on Toxicity and Biodegradability
- Lack of Microscopic Physical Properties

CONCLUSION

Room Temperature Ionic Liquids (RTILs) can revolutionize solvents and chemical processes in scientific and industrial areas. They place an innovative solution in the quest for greener and more effective chemical technologies. Addressing cost, toxicity, biodegradability concerns will enhance their industrial applicability.