

Showcasing research from Professor Sudarsanam's laboratory, Department of Chemistry, Indian Institute of Technology Hyderabad, India.

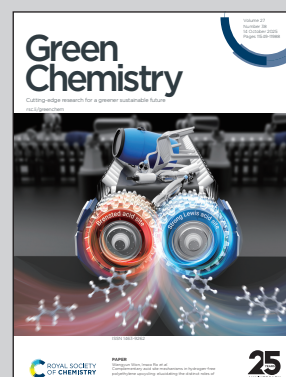
One-pot, *in situ* reductive catalytic approach for biomass furfural-based secondary amines under ambient conditions

An efficient one-pot cascade catalytic strategy has been developed for synthesizing pharmaceutically relevant secondary amines *via* C-N coupling of biomass-derived furfural with benzylamine, followed by hydrogenation. The PdNi nanoalloy, in synergy with morphology-engineered Nb₂O₅, enabled *in situ* hydrogen release from hydrogen donors and its chemisorption on the catalyst surface, thereby accelerating the cascade reductive amination. This approach highlights the potential of advanced nanoalloy catalysts for sustainable Biomass-to-Pharma conversion.

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See Hu Li, Putla Sudarsanam *et al.*, *Green Chem.*, 2025, **27**, 11794.