

# Synthesis of 2-Methylpyrazine Using Crude Glycerol over Zn-Cr-O Catalyst: A Value Addition Process for the Utilization of Biodiesel By-Product

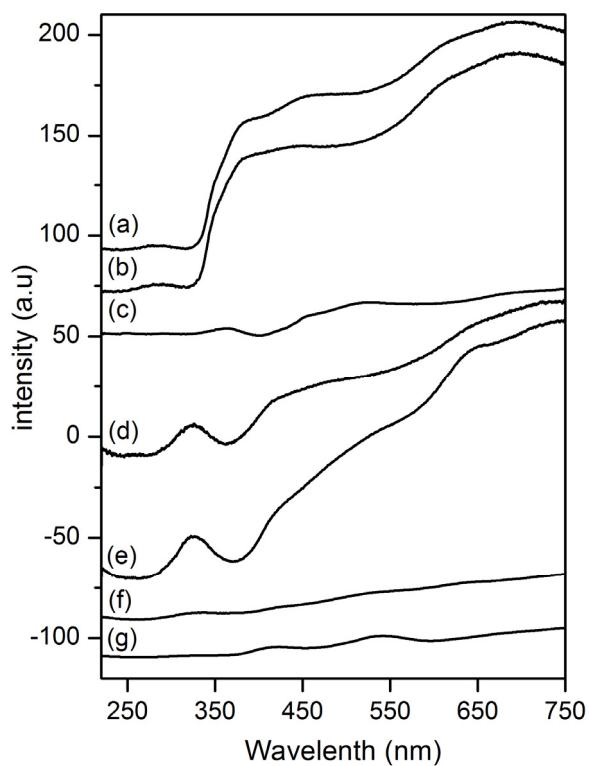
Reema Sarkari <sup>1</sup>, Kotesw Kumar Mandari <sup>1</sup>, Sudhakar Medak <sup>1</sup>, Kishore Ramineni <sup>1</sup>,  
Hari Padmasri Aytam <sup>2,\*</sup> and Venugopal Akula <sup>1,\*</sup>

<sup>1</sup> Catalysis and Fine Chemicals Division, CSIR—Indian Institute of Chemical Technology, Tarnaka, Hyderabad 500 007, TS, India

<sup>2</sup> Department of Chemistry, University College of Science, Osmania University, Hyderabad 500 007, TS, India

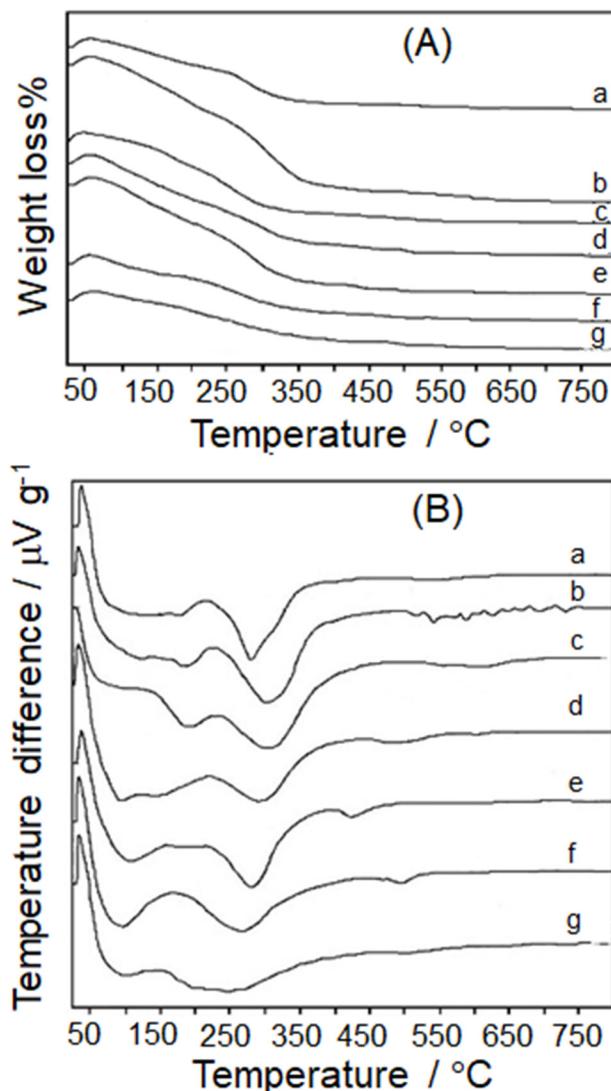
\* Correspondence: ahp padmasri@osmania.ac.in (H.P.A.); akula@iict.res.in (V.A.); Tel.: +91-40-27193165 (V.A.)

## UV-DRS analysis of the ZnCr catalysts with varied mole ratios:



**Figure S1:** UV-DR spectra of (a) Zn4Cr1, (b) Zn3Cr1, (c) Zn2Cr1, (d) Zn1Cr1, (e) Zn1Cr2, (f) Zn1Cr3 and (g) Zn1Cr4 samples.

## TG-DTA analysis of the ZnCr oven dried samples:



**Figure S2:** (A) TGA and (B) DTA patterns of Zn/Cr with varied mole ratio (a) Zn4Cr1, (b) Zn3Cr1, (c) Zn2Cr1, (d) Zn1Cr1, (e) Zn1Cr2, (f) Zn1Cr3 and (g) Zn1Cr4 samples.