

An Efficient Approach to Prepare Ether and Amide-Based Self Catalyzed Phthalonitrile Resins

Amir Badshah^{1,2}, Michael R. Kessler², Zhou Heng³ and Aurangzeb Hasan^{1,4*}

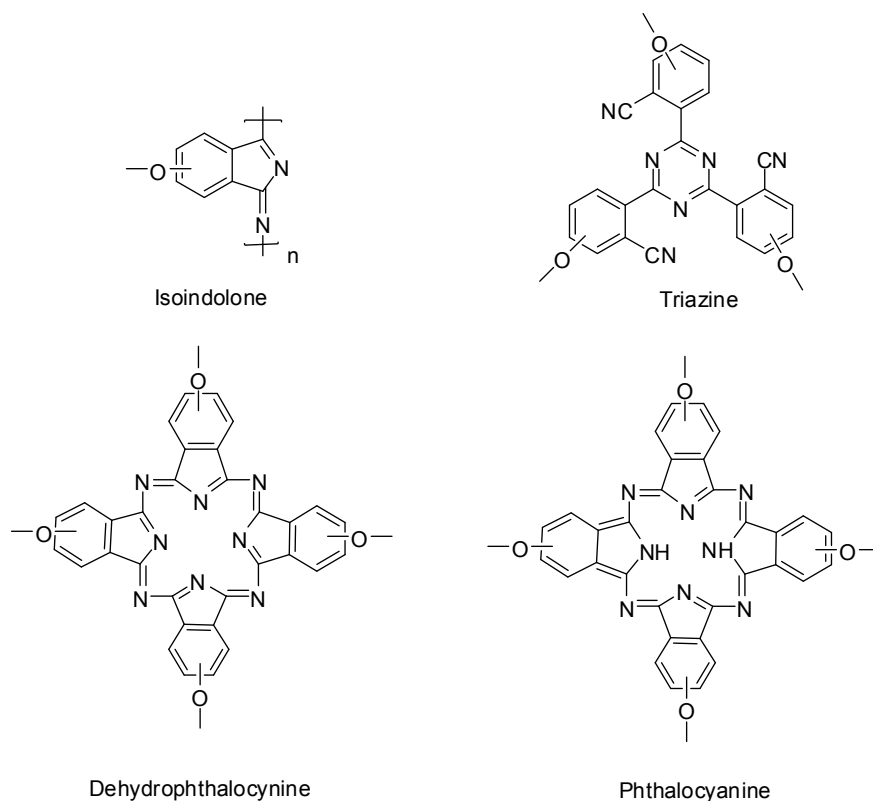


Figure i: Possible polymeric structures from phthalonitrile

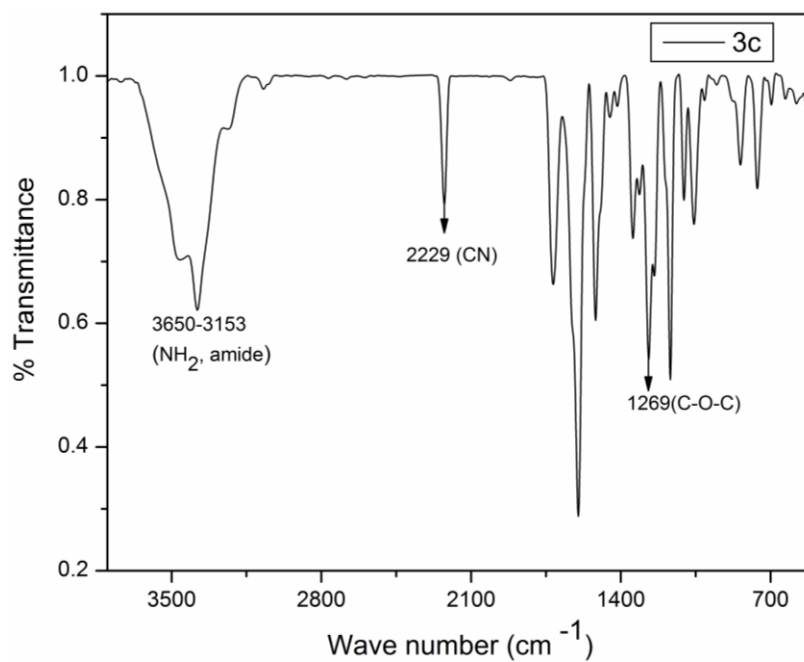


Figure ii: FT-IR Spectra of **3c** (monomer)

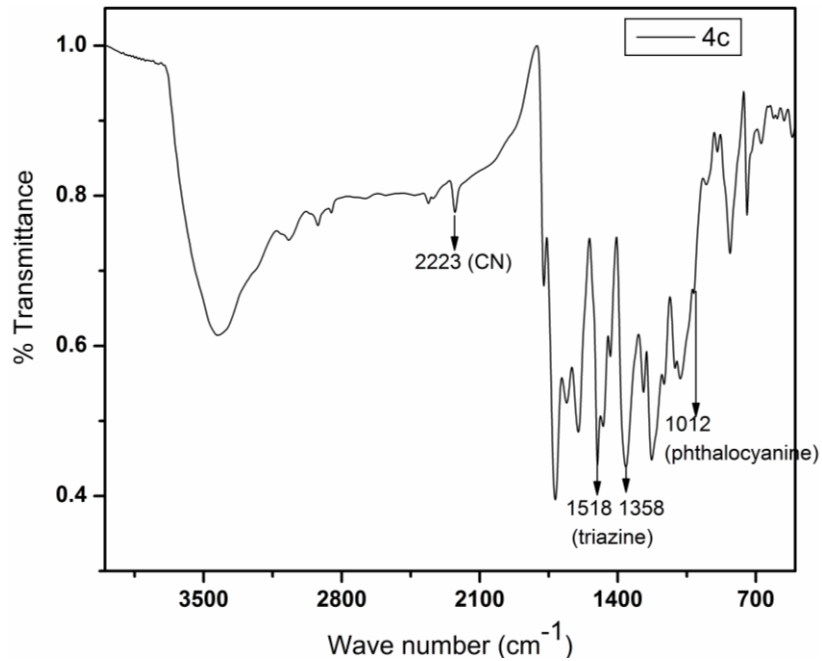


Figure iii: FT-IR Spectra of **4c** (polymer)

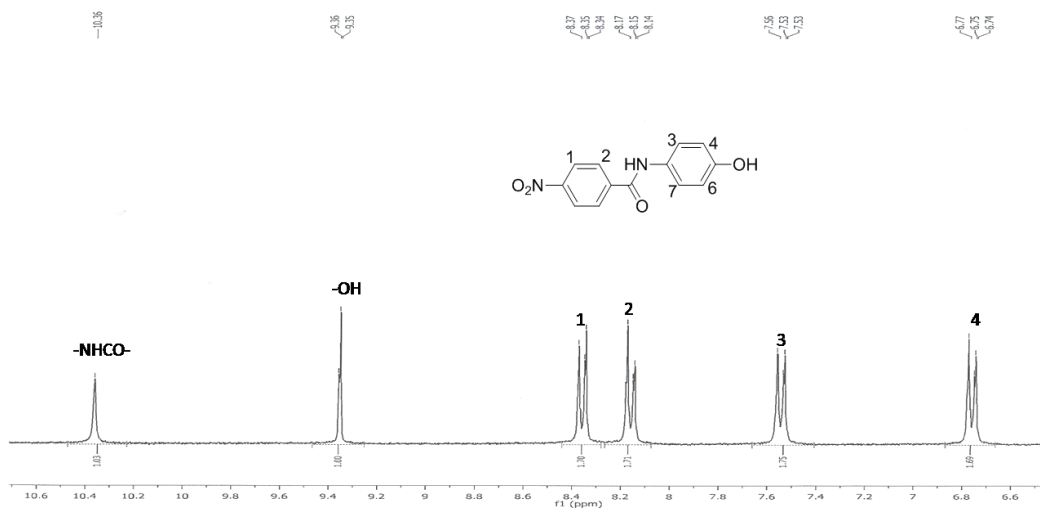


Figure iv: $^1\text{H-NMR}$ Spectra of **1c**

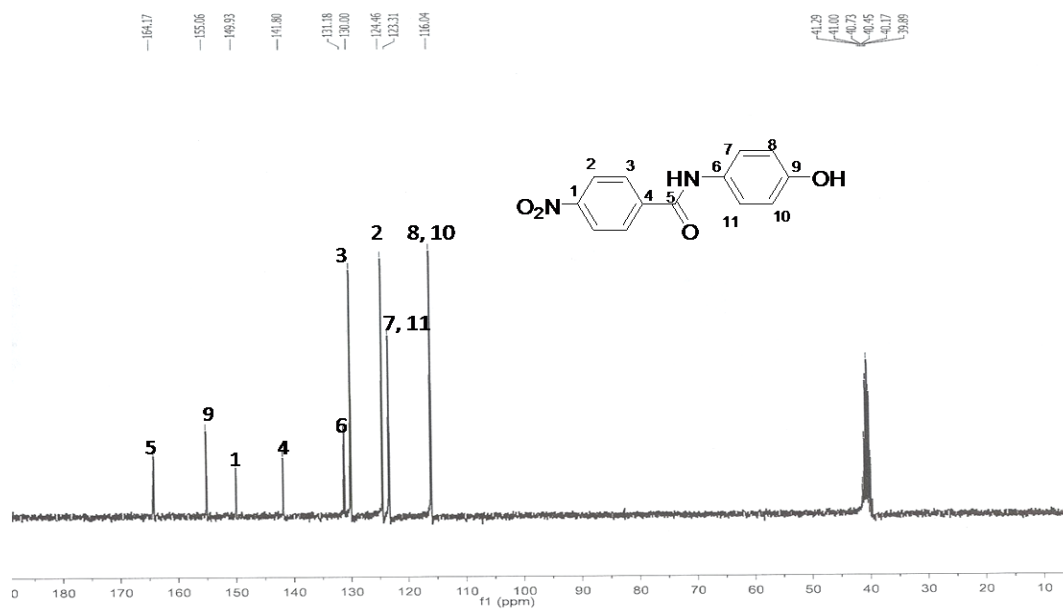


Figure v: $^{13}\text{C-NMR}$ Spectra of **1c**

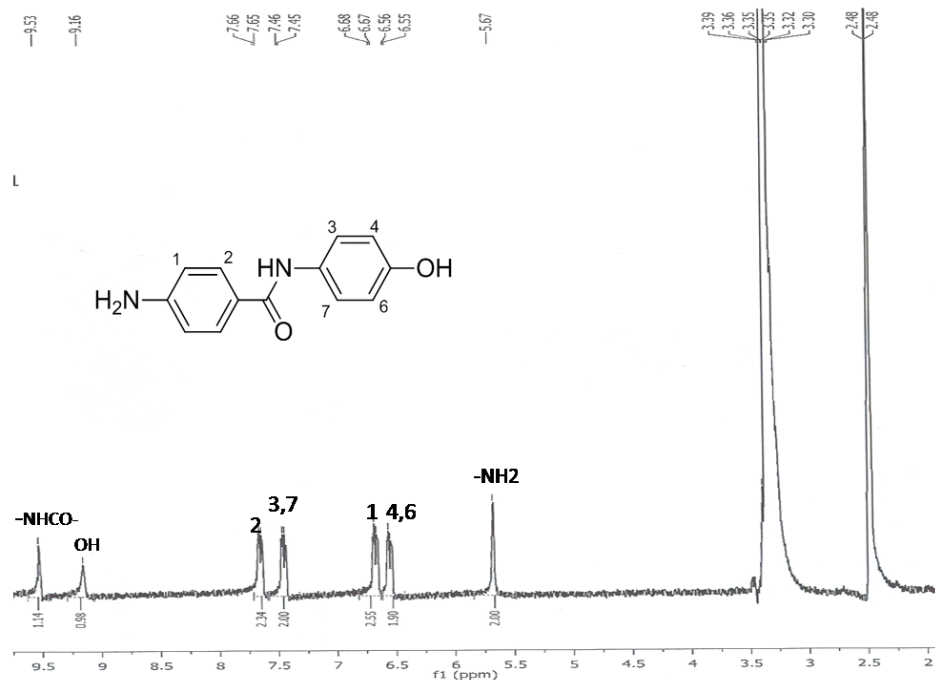


Figure vi: ^1H -NMR Spectra of 2c

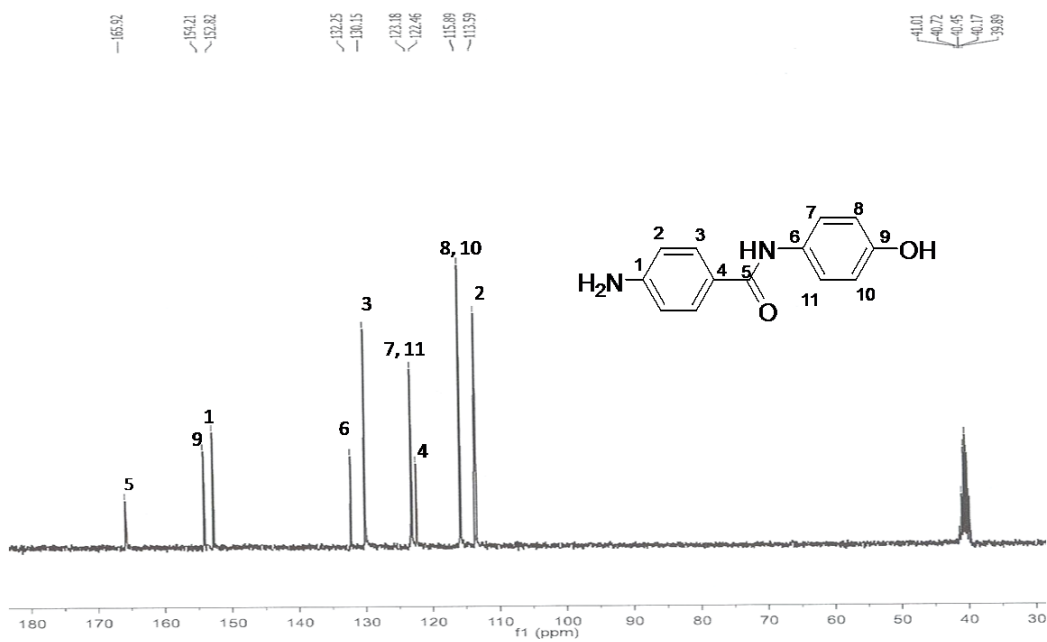


Figure vii: ^{13}C -NMR Spectra of 2c

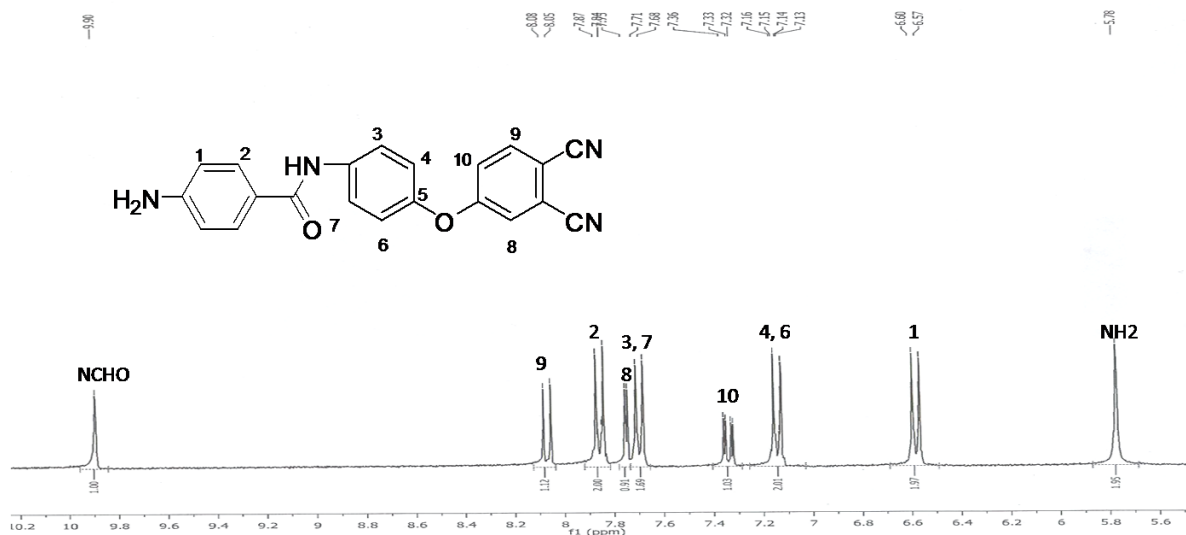


Figure viii: ¹H-NMR Spectra of **3c**

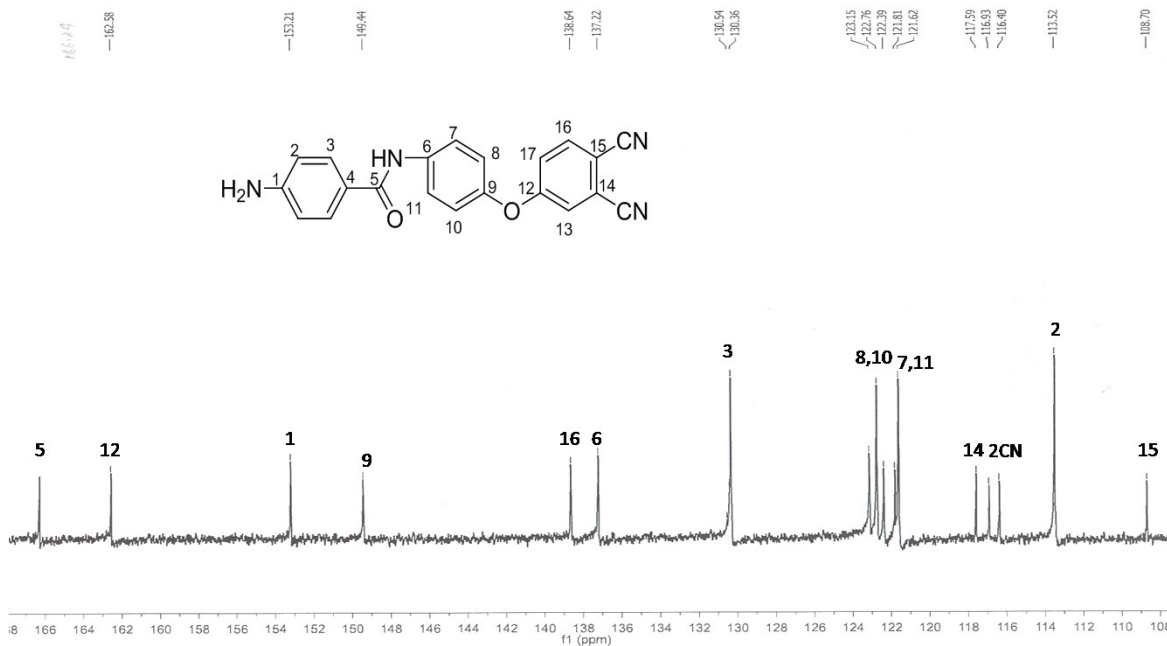


Figure ix: ¹³C-NMR Spectra of **3c**