Synthesis, Characterization of Chitosan-Aluminum Oxide Nanocomposite for Green Synthesis of Annulated Imidazopyrazol Thione Derivatives

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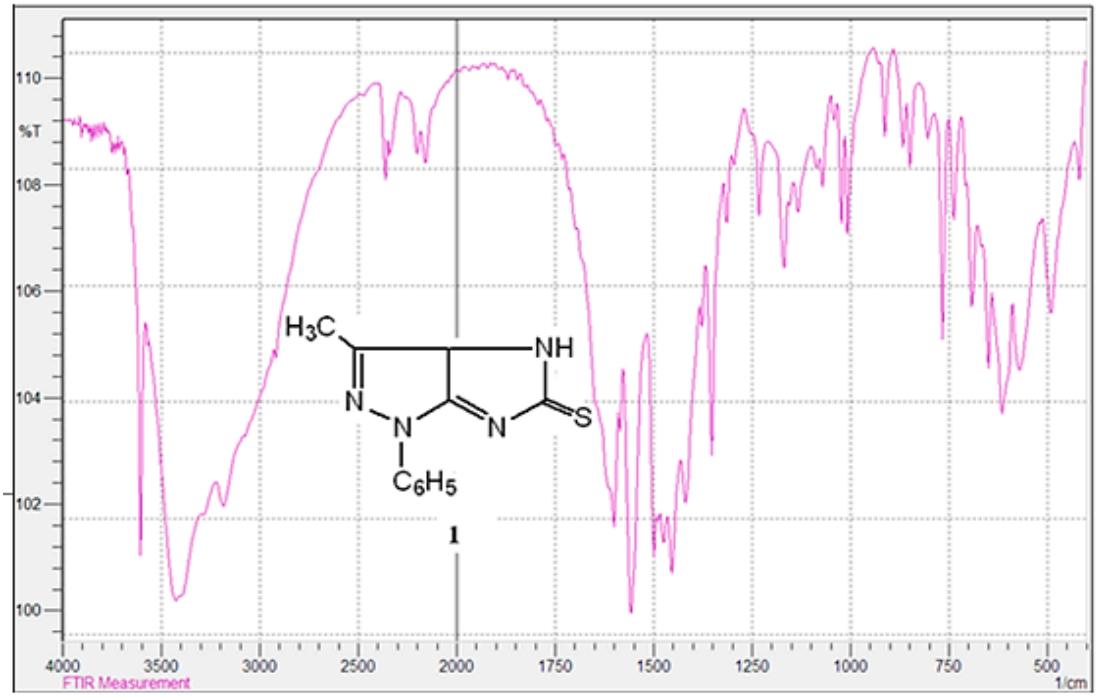

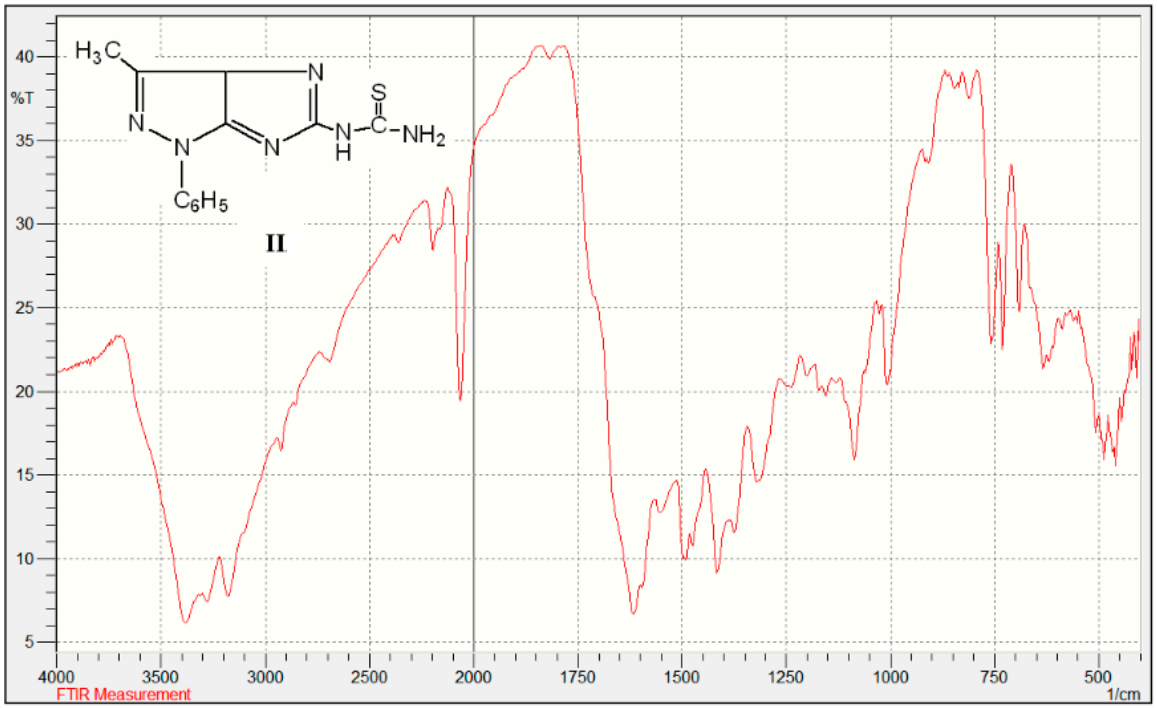

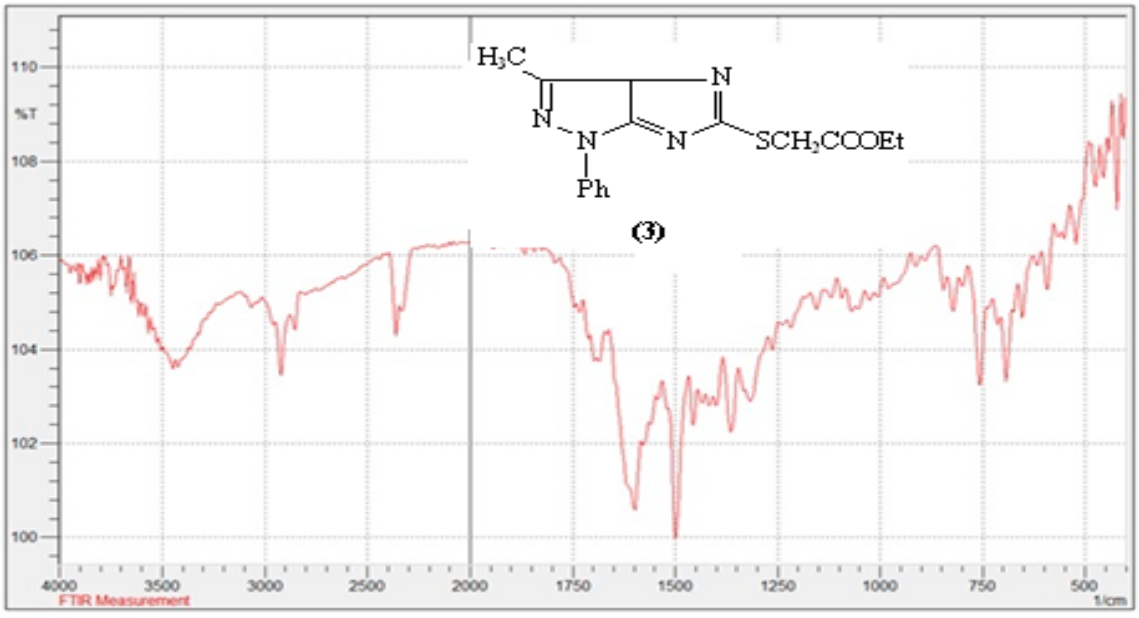

Figure S1. FTIR of various imidazo pyrazolyl thione derivatives.

Table S1. Following the formation of the derivatives by TLC.

Product	Yield	TLC	Reaction time	m.p.
1	**90 %** Mass Trial 1 = 0.8 g Trial 2 = 1.2 g	1 : 1 Diethyl ether : n-hexane	2 h	125–127 °C / Orange powder
2	**85 %** Mass Trial 1 = 0.650 g	1 : 1 Diethyl ether : n-hexane (band of SM within the range of product)	18 h	146–148 °C / Orange crystal
3	**85 %** Mass Trial 1 = 0.722 g Trial 2 = 0.695 g	1 : 1 Diethyl ether : n-hexane	6 h	189–191 °C / Brown powder