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GREEN SYNTHESIS OF 1-METHYL-2-PHENYL-3-(THIOPHEN-2-YL)-1H-INDOLE

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ABSTRACT

Indole and derivatives have emerged as central candidates for material chemistry since they show remarkable properties in solar cells. Many synthetic methods have been employed for the synthesis of indoles. Moreover, 3-thiophenylindoles could play very critical roles for the synthesis of novel organic materials. In the present study, 1-methyl-2-phenyl-3-(thiophen-2-yl)-1H-indole is synthesized by using three different reaction ways including Suzuki-Miyaura coupling reaction, Stille coupling reaction and MW assisted cyclization reaction. It was investigated that microwave assisted green reaction could be the best way for the formation of 1-methyl-2-phenyl-3-(thiophen-2-yl)-1H-indole.

Keywords: Indole; Green Chemistry; Microwave Irradiation, Solar cells, coupling reactions.