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Amberlyst-15: An Efficient and Reusable Catalyst for One Pot Synthesis of Pyrazoline Derivatives Bearing an Indole Moiety as New Antimicrobial Agents

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ABSTRACT

Heterogeneous Amberlyst-15 catalyst exhibit an efficient catalytic properties for the cyclization of 1-(4-Fluoro-phenyl)-3-(1H-indol-3-yl)-propanone (chalcones) with various aryl/alkyl hydrazines under microwave irradiation to yield 3-[5-(4-Fluoro-phenyl)-4,5-dihydro-1H-pyrazol-3-yl]-1H-indole derivatives (3a-3j). The newly synthesized compounds were evaluated for their antimicrobial activity against gram-positive bacteria (*Salmonella abony* and *Pseudomonas aeruginosa*) and gram negative bacteria (*Escherichia coli* and *Klebsiella pneumonia*) by using disc diffusion method. The results reveal that the current synthetic pathway provides many advantages, such as commercially available inexpensive starting materials and recyclable catalyst, ecofriendly reaction conditions, shorter reaction time with excellent yields and all the synthesized compounds are reflecting worthy biological activity.

Keywords: Chalcones, Pyrazoline derivatives, Recyclable Amberlyst-15 catalyst, Antimicrobial activity, Minimum inhibitory concentration, Microwave (MW) irradiation.

The Editorial office of the Der Pharma Chemica Journal has accepted the article entitled “**Amberlyst-15: An Efficient and Reusable Catalyst for One Pot Synthesis of Pyrazoline Derivatives Bearing an Indole Moiety as New Antimicrobial Agents**” for publication by taking into consideration the statements provided in the article as personal opinion of the author which was found not having any biasness or conflicts towards anything. Since, the article is the perspective one, information provided by the author was considered as an opinion to be expressed through publication. But post publication we were requested by the author to retract the paper because of his personal reasons regarding the further more work that needs to be carried out. Publisher took decision to make the article online solely based on the reviewers suggestion which considered the article not but a personal opinion of the author.

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