

**Erratum**

**SYNTHESIS AND UTILITY OF NEW POLYCYCLIC COMPOUNDS AS POTENTIAL  
ANTIMICROBIALS BASED ON CHROMENE MOIETY**

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**ABSTRACT**

**Objective:** The present research aims to synthesize some new polycyclic compounds including chromene moiety and study their antimicrobial activity.

**Methods:** Several new polycyclic systems including chromene scaffold incorporated with pyridine, pyrimidine, imidazopyrimidine, and imidazodiazocine were achieved *via* condensation reaction of chromene derivative under the proper condition with various reagents namely; cyanothioacetamide, phenyl isothiocyanate, malononitrile, carbon disulfide, benzaldehyde, triethyl orthoformate, and 1,4-dichlorobutane. Moreover, a chlorodiazanyl chromene derivative was reacted with some substances possessing active-CH<sub>2</sub>-bridge such as ethyl cyanoacetate and malononitrile to end up with hydrazono compounds. Such compounds were eventually cyclized with hydrazine hydrate to form pyrazole and oxypyrazole derivatives. Moreover, compound 1 was treated with benzoyl acetone, and then followed by cyclization with malononitrile to provide the corresponding 2-amino-14-(4-methoxyphenyl)-4-methyl-5-phenyl-14H-benzo[5,6]chromeno [2,3H][1,6]naphthyridine-3-carbonitrile (20).

**Results:** The results of the antimicrobial screening *in vitro* revealed that the inhibition zone (mm) of the synthesized compounds 1-3, 5 and 8 implied their optimum antibacterial activity, while the compounds 4, 6 and 9-13, 15 showed a moderate to weak antibacterial activity against multiple species of *B. subtilis*, *S. aureus*, *E. coli* and *P. aeruginosa*. In contrast, the compounds 1, 6, 11, 15 showed high antifungal activities against different species of *A. flavin* and *C. albicans*, while the other compounds exhibit a moderate to poor antifungal activity.

**Conclusion:** It is remarkable that a series of chromene derivatives synthesized by a simple and available method leads to a molecule of promising antimicrobial activity. Further research is recommended to approve the importance of polycyclic systems for various applications.

**Keywords:** Chromene-3-carbonitrile, Chromenes, Polycyclic compounds, Pyrimidines, Fused ring, Antimicrobial activity

Dear Editor,

With regard to the publication in: International Journal of Pharmacy and Pharmaceutical Sciences entitled "Synthesis and Utility of New Polycyclic Compounds as potential Antimicrobial Based on Chromene Moiety" which is fully published in your respectable journal 2019 vol 11, issue 9. I have been significantly the corresponding author and contributing with team. It came to my attention that this manuscript now is published, Affiliation regarding to Finland should be removed (Nanochemistry nanoengineering School of chemical Engineering, Department of chemistry and Material science Aalto university, Finland) regarding to the corresponding author EMAN S ZARIE

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