



TURKISH CHEMISTS  
SOCIETY

ANATOLIAN  
CONFERENCE

ON  
SYNTHETIC  
ORGANIC  
CHEMISTRY

MARCH 21-24, 2016, KUŞADASI, AYDIN, TURKEY

Anatolian Conference on Synthetic Organic Chemistry

**ACSOC II**

March 21-24, 2016, Kuşadası, Aydın, Turkey

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## Synthesis, structural explanation and investigation of biological activities on carrying some new bis derivative benzimidazol, benzoxazole and benzothiazole compound

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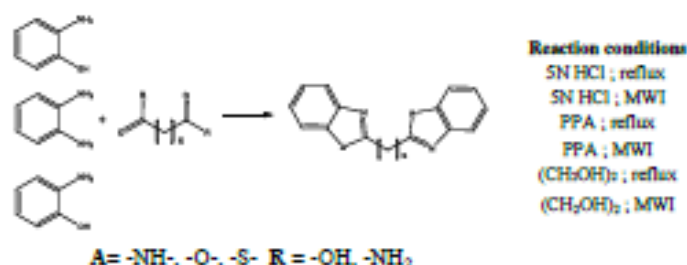
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Benzazoles such as benzoxazole, benzothiazole and benzimidazole are heterocyclic compounds which display a wide spectrum of biological activities and thus have been excite attention by organic and medicinal chemists due to their use as potential pharmacophores.<sup>1-3</sup> These rings are also recognized by organisms, because of they are isosteres of basic structures of DNA bases, tryptophane and serotonin and placed in the natural structure of vitamin B<sub>12</sub>.

Structural modifications of benzazoles are being carried out in several ways in order to enhance their biological activities. Therefore, to identify a general, practical and efficient method for the construction of benzazoles under mild conditions is still examined. These structural modifications have given a large number of available benzazole compounds for pharmacological research.<sup>4-6</sup>



In this study, we have synthesized a series of benzazole derivatives and evaluated their antimicrobial activity against some Gram positive, Gram negative bacteria and fungi. These studies have shown that these group of compounds can be promising lead compounds for further development of novel benzazole structures, considering its antimicrobial potency.

### References

- 1) Arisoy M, Temiz-Arpaci O, Kaynak-Ozurdag F, Ozgen S. *Z Naturforsch C*. 2012, 67, 466-72.
- 2) Singh MK, Tilak R, Nath G, Awasthi SK, Agarwal A. *Eur J Med Chem*. 2013, 63, 635-44. Krihanjaneyulu IS, Saravanan G, Vamsi J, Supriya P, Bhavana JU, Kumar MV. *J Adv Pharm Technol Res*. 2014, 5(1), 21-27.
- 3) Agh-Atabay NM, Dalgır B, Gucin F. *Eur J Med Chem*. 2003, 38(10), 875-881.
- 4) Kaçıkbay H, Yılmaz Ü, Şireci N, Önganer AN. *Türk J Chem*. 2011, 35, 561-571.
- 5) Reddy LM, Prakash TB, Padmaja A, Padmarathi V. *Med Chem Res*. 2015, 24, 970-979

[Financial support was provided by grant from the Research Foundation of Mersin University (2015-TP2-1327)].