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Azo benzimidazole - A biologically active scaffold

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Abstract : Azo compounds are a very unique class of chemical compounds, drawing considerations in scientific research. Azo compounds are studied as class of organic colorants which have at least a conjugated chromophore azo (-N=N-) group in fusion with one or more aromatic or heterocyclic ring system. Benzimidazole derivatives are privileged intermediates for the development of molecules of pharmaceutical or biological interest. Benzimidazole derivatives have gathered wide applications in diverse therapeutic areas such as antiulcer, anticancer agents, and anthelmintic species to name just a few. Although many azo derivatives of benzimidazole nucleus has been reported in literature but only few of them have been evaluated for their biological potencies. This review focuses primarily on those derivatives which are evaluated as anticancer, antibacterial, antifungal, antitubercular, and other medicinal agents. This review may be helpful for the investigators on the basis of substitution pattern on the nucleus with an objective to assist medicinal chemists for developing an SAR on azo benzimidazoles or similar compounds.

Keywords : Azo benzimidazole, A biologically active scaffold.

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