

## **Heterocycles of biological importance: Part 6. The formation of novelbiologically active pyrimido[1,2-a]benzimid-azoles from electron deficientalkynes and 2-aminobenzimidazoles**

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### **Abstract**

2-Aminobenzimidazole (1a) and its 5,6-dimethyl derivative 1b react with phenylpropynenitrile (2) to give 2-amino-4-phenylpyrimido[1,2-a]benzimidazoles 8a,b in excellent yields. Of these compounds, 2-amino-7,8-dimethyl-4- phenylpyrimido[1,2-a]benzimidazole (8b) has been shown to possess diuretic properties. Acetylenic aldehydes 9a,b also react with 1a,b to give pyrimido[1,2-a]benzimidazoles 13a-13d in good yield.

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### **Keywords**

2-aminobenzimidazole, Diuretic, Michael addition, Pyrimido[1,2-a]benzimidazole