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MICROWAVE ENHANCED SYNTHESIS OF QUINAZOLINES

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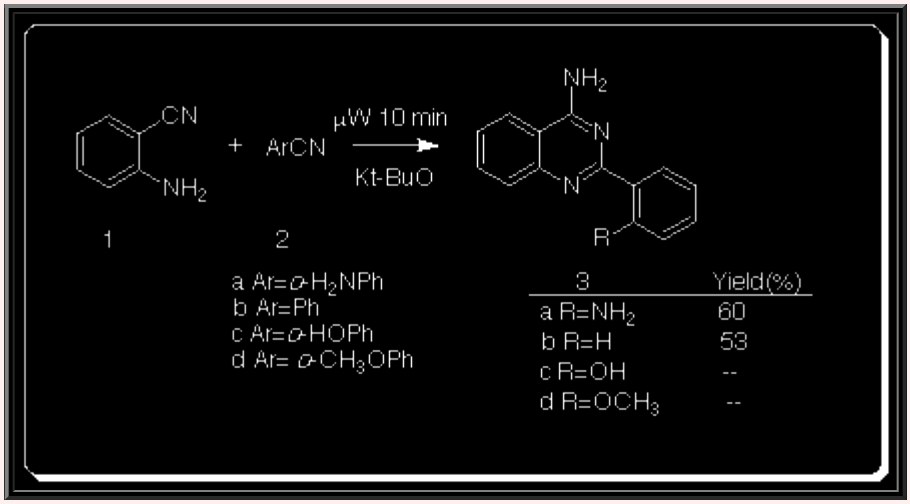
Microwave heating has been employed as a frequent resource for improvement of classical reactions, and sometimes it led to discover new reactions. Quinazolines are a kind of compounds well known, whose synthesis has been studied for more than a century.

In this paper we describe the use of microwaves to enhance the synthesis of 4-aminoquinazolines. These compounds are of interest due to its pharmacological uses.



When anthranilonitrile is heated in a domestic microwave oven in the presence of potassium tert-butoxide, 2-(2-aminophenyl)-4-aminoquinazoline2(3a**)** is isolated in good yield (60%). If the above reaction was carried out using a heating mantle, the transformation proceeded sluggishly.

Mixed couplings were also assayed, thus when we heated together anthranilonitrile and benzonitrile the

reaction product was **3b** in a 53% yield. Meanwhile, in mixed couplings of anthranilonitrile **(1)** with salicylonitrile **(2c)** and with o-methoxynitrile **(2d)** no quinazoline could be isolated. At the present we are studying the influence of different aromatic rings with several substitution patterns in compound **2.**

We think our method constitutes an easy way to deal with the synthesis of variety of quinazolines, opening a via to check new applications of this compounds as bioactive agents.

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