# Microwave Induced Electrophilic Aromatic Substitution of **Pyridines**

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Appalachian

#### **Abstract**

estafferi et al. have reported the synthesis of the mono- and dimethoxy pyridines in DMSO, in 2 to 38h at 80°C using an excess of NaOMe. We have found that in the microwave 2-methoxypyridine can be prepared in only 5 minutes at 65°C P-95% conversion) and 2.6-dimethoxypyridine can also be prepared in good yield in less than an hour. We have extended the scope of this microwave-induced reaction by adding sterically larger groups (R = Pr. Bu, sechal and phenyl) to 2.6-dipromopyridines with 64-95% conversion to the 2-alkoxypyridine in only 5 minutes.

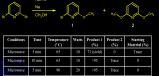
### Advantages of Microwave

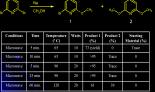
- Faster reaction times.
- Undesirable side reactions are avoided.
- Quick results for research.
- Higher temperatures are reached in a shorter amount of time.

# Synthetic Uses of 2,6-Dimethoxypyridine

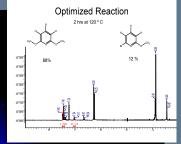


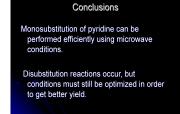
#### Results











## Future Plans

Substitute using different alcohols

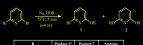


Increase wattage





Substitution with Other 1º Alchohols



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