

## ABSTRACT

### SYNTHESIS OF 6-[(*N*-PHENYL-*N*-METHYLAMINO)METHYL]PINOSTROBIN BY WAY OF MANNICH REACTION USING PINOSTROBIN AS STARTING MATERIAL

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Previous studies showed that pinostrobin have a lot of bioactivities, such as antimicrobial, antiinflammation, and cytotoxic. To increase its bioactivity, we introduced aminomethyl substituent into the structure of pinostrobin by using Mannich reaction. This research was conducted to synthesize 6-[(*N*-phenyl-*N*-methylamino)methyl]pinostrobin (Mannich Base) as the target compound. The synthesis itself consists of two steps. Firstly, *N*-methylaniline was reacted with formalin to obtain iminium salt as the intermediate product. Secondly, iminium salt obtained from the first step reaction, was reacted with pinostrobin. The product was then purified by column chromatography to get a white solid. Then the resulted product was analyzed using IR and H-NMR spectroscopy to determine its structure, and it was concluded that the obtained compound was 6-[(*N*-phenyl-*N*-methylamino)methyl]pinostrobin.

**Keywords:** Pinostrobin, Mannich Reaction, 6-[(*N*-phenyl-*N*-methylamino)methyl]pinostrobin, *N*-methylaniline, Formalin