

**OPTIMASI WAKTU REAKSI SINTESIS SENYAWA KALKON DARI *p*-
BROMOASETOFENON DAN VANILIN DALAM SUASANA ASAM**

**OPTIMIZATION OF TIME REACTION CHALCONE'S COMPOUND
SYNTHESIS FROM *p*-BROMOACETOPHENONE AND VANILLIN IN
ACID CONDITION**

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Abstrak

Penelitian ini bertujuan untuk sintesis senyawa 4'-bromo-4-hidroksi-3-metoksikalkon dari bahan dasar *p*-bromoasetofenon dan vanillin. Kalkon disintesis dengan reaksi kondensasi aldol silang dalam suasana asam pada variasi waktu 4, 6, dan 8 jam. Hasil penelitian ini diidentifikasi dengan spektrofotometer UV-Vis, IR, dan ¹H-NMR. Senyawa 4'-bromo-4-hidroksi-3-metoksikalkon berhasil diperoleh pada waktu pengadukan 6, dan 8 jam, sedangkan pada waktu pengadukan 4 jam belum terjadi reaksi kondensasi. Senyawa hasil sintesis pada variasi waktu 6, dan 8 jam menghasilkan rendemen berturut-turut sebesar 3,42 %, dan 23,52 %. Waktu reaksi optimum sintesis 4'-bromo-4-hidroksi-3-metoksikalkon adalah 8 jam.

Kata kunci: *sintesis kalkon, kondensasi aldol silang, suasana asam, waktu reaksi.*

Abstract

The aim of this research was to synthesized 4'-bromo-4-hydroxy-3-methoxychalcone's compound from *p*-bromoacetophenone and vanillin as raw material. Chalcone was synthesized by cross aldol condensation reaction in acid condition at time variation 4, 6, and 8 hours. This result was characterized by spectrophotometer UV-Vis, IR, and ¹H-NMR. 4'-bromo-4-hydroxy-3-methoxychalcone's compound succesful acquired stirring at time 6, and 8 hours, whereas stirring at time 4 hours was not become condensate reaction yet. The synthesis's yielding compound at time variation 6, and 8 hours respectively percent yield were 3.42 %, and 23.52 %. The optimum reaction time of synthesis 4'-bromo-4-hydroxy-3-methoxychalcone was 8 hours.

Keywords: *chalcone synthesis, cross aldol condensation, acid condition, time of reaction.*