Rofiq,Muhammad A, 2019, Pengaruh Gugus Pendorong dan Penarik Elektron pada Sintesis Turunan 6-Stirildihidropirimidinon Berbasis Vanilin. Skripsi dibawah bimbingan Dr. Hery Suwito, M.Si. dan Kautsar Ul Haq, S.Si., M.Si, Departemen Kimia, Fakultas Sains dan Teknologi, Universitas Airlangga

ABSTRAK

Turunan 6-stiril-DHPM merupakan turunan stilbena yang memiliki berbagai macam aktivitas biologis seperti , antikanker, antimalaria dan anti-HIV. Pada penelitian ini, 6-stiril-DHPM disintesis melalui reaksi aldol-*type* dengan reaktan vanillin dihidropirimidinon, turunan benzaldehida dan asam *para*-Toluenasulfonat (*p*TSA) sebagai katalis. Adanya perbedaan substituen pada benzaldehida berupa gugus pendorong elektron (EDG) dan gugus penarik elektron (EWG) mempengaruhi kecepatan reaksi. MT-1 yang tersubstitusi dua gugus metoksi memiliki waktu reaksi lebih cepat yaitu 23 jam, sedangkan MT-2 dengan substituen gugus fluoro reaksinya berlangsung lebih lama yaitu 73 jam. Penentuan struktur MT-1 dan MT-2 dilakukan menggunakan instrumen FTIR, ^{1}H-NMR dan ^{13}C-NMR.

Kata kunci : vanillin dihidropirimidinon, 6-stiril-DHPM, reaksi aldol-*type*

Rofiq, Muhammad A, 2019, The Effect of Electron Donating and Withdrawing Group of Synthesis 6-Styryl Dyhydropyrimidinone derivatives Based On Vanilin. The script was under Dr. Hery Suwito, M.Si. and Kautsar Ul Haq, S.Si., M.Si, Departement of Chemistry, Faculty of Sains and Technology, Airlangga University

ABSTRACT

6-styryl-DHPM are stylbene derivatives that has various biological activities such as anticancer, antimalarial and anti-HIV. In this research, 6-styryl-DHPM derivatives are synthesized through aldol-type reaction between vanillin dihydropyrimidone reactants with derivative of benzaldehyde and para-Toluenesufonic acid (*p*TSA) as catalyst. Electronic factor of benzaldyhide substituent (EDG or EWG group) affected the reaction time. Two methoxy substituent of MT-1 showed faster reaction time, 23 hours, while fluoro group of MT-2 showed slower reaction time, 73 hours. The structures of MT-1 and MT-2 were characterized by spectroscopic of FTIR, ^{1}H-NMR and ^{13}C-NMR.

Keywords : Vanilin dihydropyrimidone, 6-styryl-DHPM, and aldol-*type*