

Putra, Rizal Adi, 2019, Pengaruh Jumlah Gugus Metoksi Turunan Benzaldehida Pada Sintesis Turunan 6-Stiril-Dihidropirimidinon. Skripsi dibawah bimbingan Dr. Hery Suwito, M.Si. dan Kautsar Ul Haq, S.Si., M.Si. Departemen Kimia, Fakultas Sains dan Teknologi.

ABSTRAK

Senyawa golongan stilbena dan turunannya banyak disintesis karena memiliki aktivitas biologis yang beragam antara lain sebagai antiinflamasi, antivirus, antioksidan, antikanker, dan efek neuroprotektif. Salah satu senyawa turunan stilbena yang banyak disintesis karena memiliki aktivitas biologis yang beragam adalah senyawa stirilheterosiklis. Senyawa 6-stiril-DHPM yang merupakan turunan stirilheterosiklis dapat disintesis dengan reaksi aldol-*type*. Senyawa 6-stiril-DHPM dapat diperoleh dari reaksi antara turunan DHPM dan aldehida aromatis yang dapat dikatalisis dengan asam. Pada penelitian ini telah disintesis 2 senyawa turunan 6-stiril-DHPM melalui reaksi aldol-*type*. Sintesis dilakukan melalui metode refluks dengan mereaksikan senyawa turunan DHPM dengan 2,4-dimetoksibenzaldehida untuk MT-1 dan 2-metoksibenzaldehida untuk MT-2. Produk yang dihasilkan berupa padatan jingga dengan rendemen sebesar 29,6% dan 24,7%. Produk hasil sintesis kemudian dilakukan uji kemurnian dengan Kromatografi Lapis Tipis (KLT) dalam tiga sistem eluen yang berbeda dan uji titik leleh. Karakterisasi molekul target dilakukan dengan instrumen FT-IR dan NMR ($^1\text{H-NMR}$ dan $^{13}\text{C APT NMR}$).

Kata kunci : *Stirilheterosiklis, 6-stiril-DHPM, 2,5-dimetoksibenzaldehida, 2-metoksibenzaldehida, Reaksi aldol-type.*

Putra, Rizal Adi, 2019, The Effect of Number of Methoxy Group on Benzaldehyde Derivatives in the Synthesis of 6-Styryl-Dihydropyrimidinone Derivatives. Thesis under the guidance of Dr. Hery Suwito, M.Si. and Kautsar Ul Haq, S.Si., M.Si. Department of Chemistry, Faculty of Science and Technology.

ABSTRACT

Styrene compounds and their derivatives are synthesized because they have diverse biological activities such as anti-inflammatory, antiviral, antioxidant, anticancer, and neuroprotective effects. One of the styrene derivative compounds that is widely synthesized due to its diverse biological activity is the styrylheterocycle compound. 6-styryl-DHPM compounds which are styrylheterocycle derivatives can be synthesized by aldol-type reactions. 6-styryl-DHPM compounds can be obtained from the reaction between DHPM derivative and aromatic aldehydes which can be catalyzed with acid. In this study 2 synthesized 6-styryl-DHPM derivatives have been synthesized via an aldol-type reaction. The synthesis was carried out through the reflux method by reacting the DHPM derivative compound with 2,4-dimethoxybenzaldehyde for TM-1 and 2-methoxybenzaldehyde for TM-2. The obtained products are orange with yields of 29.6% and 24.7%. The synthesized product then was tested for its purity by Thin Layer Chromatography (TLC) in three different eluent systems and melting point tests. Characterization of target molecules was carried out with FT-IR and NMR (¹H-NMR and ¹³C APT NMR) instruments.

Keywords : *Styrylheterocycle, 6-styryl-DHPM, 2,5-dimethoxybenzaldehyde, 2-methoxybenzaldehyde, Aldol-type reaction.*