SYNTHESIS OF 1-(3,4-METHYLENEDIOXYPHENYL)-1-BUTENE-3-ONE FROM SAFROLE

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ABSTRACT

The synthesis of 1-(3,4-methylenedioxyphenyl)-1-butene-3-one from Safrole has been done through conversion of allyl group to double bonds conjugated-ketone. Safrole was isolated from *culilawan* oil. The isomerization of safrole with KOH free solvent yielded isosafrole (72.82%), followed by oxidation of isosafrole with KMnO₄ and the application of Tween 80 as catalyst yielded piperonal (72.30%). The Condensation reaction of piperonal with acetone by the molar ratio of piperonal and acetone 1:6 and KOH as a catalyst and reaction time 2 hours followed by recrystalisation in methanol yielded yellow solid (84.21%).

Keywords: 1-(3,4-methylenedioxyphenyl)-1-butene-3-one, piperonal, isosasafrole, safrole, *culilawan* oil.