

SINTESIS 6-NITRO VERATRALDEHID (3,4-DIMETOKSI-6-NITRO BENZALDEHID) DARI VANILIN DENGAN HNO₃ DAN CAMPURAN HNO₃-H₂SO₄

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Abstract	<p>The synthesis of 6-nitro veratraldehyde from vanillin was used HNO₃ and a mixture of HNO₃ and H₂SO₄. The reaction steps were (1) methylation of vanillin and (2) nitration of the methylation product. Methylation of vanillin was conducted using dimethylsulfate and NaOH at 60 °C for 2 hours. Nitration of the methylation product was performed in two methods, which using HNO₃ and using a mixture of HNO₃ and H₂SO₄ both at 5 °C for 2 hours. The products were analyzed by means of TLC, GC; IR, ¹H-NMR and GC-MS spectrometers. The methylation of vanillin gave 87.7 % yield of veratraldehyde which was found as a white crystal (m.p 43 °C). The nitration of veratraldehyde produced 6-nitro veratraldehyde observed as a yellow crystal having of m.p. 130°C. Nitration using neat HNO₃ gave a smaller yield (50.35%) of 6-nitro veratraldehyde than nitration with a mixture of HNO₃ and H₂SO₄ (93.63 %).</p>
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