

## AMOBILISASI KOMPLEK KOBAL(II) PADA POLI(4-VINILPIRIDIN) DAN KARAKTERISASINYA

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### ABSTRACT

Acetonitrile ligated cobalt(II) complex was successfully immobilized on poly(4-vinylpyridine) (P4VP). The grafted material was characterized by *Fourier Transform Infra Red* (FTIR), *Scanning Electron Microscope* (SEM), *UV-Visible Spectrometry*, *Thermal Gravimetry-Differential Thermal Analysis* (TG-DTA) and *Atomic Absorption Spectrophotometry* (AAS). The FTIR measurement confirmed a successful grafting indicated by the presence of a weak donor-acceptor interaction between N of poly(4-vinylpyridine) with the  $\text{Co}^{2+}$  of the complex. A change of surface morphology after immobilization process was evidenced by SEM photographs. TG-DTA analysis showed that the attached Co(II) complex on P4VP was found to be moderately thermally stable. The metal leaching of the obtained heterogeneous catalyst measured by AAS was found to be less than 0.1%.

**Keywords:** *Immobilization, Grafting, Heterogeneous catalyst, Donor-acceptor interaction, Surface area, Metal leaching*

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