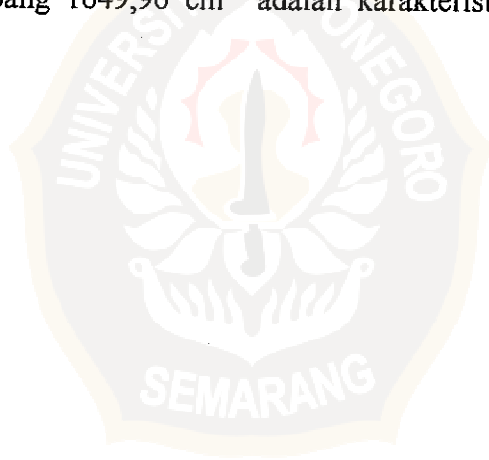


## RINGKASAN

Telah dilakukan penelitian pembuatan katalis Mo-Co/ $\gamma$ -Al<sub>2</sub>O<sub>3</sub> dengan metode impregnasi basah bertahap, dilanjutkan pengeringan dan kalsinasi. Konsentrasi awal logam Mo dan logam Co dibuat bervariasi, sedangkan waktu impregnasi, berat penyangga, serta kondisi pengeringan dan kalsinasi dibuat tetap. Karakterisasi katalis meliputi penentuan luas permukaan total dengan metode adsorpsi gas nitrogen, penentuan keasaman katalis dilakukan secara gravimetri dan spektroskopi FTIR. Adapun kandungan logam katalis ditentukan menggunakan AAS.

Hasil analisa AAS menunjukkan bahwa preparasi katalis dengan komposisi mula-mula Mo sebesar 15,7385 % dan Co 2,9356 % b/v menghasilkan katalis dengan kandungan MoO<sub>3</sub> sebesar 13,1435 % dan CoO 2,2884 % b/b adalah katalis dengan kandungan logam aktif optimum. Luas permukaan total katalis dan keasaman katalis cenderung menurun dengan semakin meningkatnya kandungan total logam oksida. Pada spektra FTIR menunjukkan bahwa katalis mampu mengadsorpsi piridin pada bilangan gelombang 1447,50 cm<sup>-1</sup> yang mengindikasikan adanya situs asam Lewis, dan pada bilangan gelombang 1649,96 cm<sup>-1</sup> adalah karakteristik untuk jenis asam Bronsted.



## SUMMARY

Preparation of Mo-Co/ $\gamma$ -Al<sub>2</sub>O<sub>3</sub> catalyst has been carried out by successive wet-impregnation method and followed by drying and calcination. The preparation variables were both of metal precursor concentration whereas time of impregnation, support weight, drying and calcinating condition were made constant. The characterisation included total surface area measurement by nitrogen gas adsorption method, acidity of catalyst with gravimetry determining and FTIR spectroscopy, while metal contents catalyst determining by AAS.

The results of AAS showed that catalyst preparation by using composition of precursor Mo amount to 15.7385 % and Co 2.9356 % w/v gave the catalyst, with the composition of MoO<sub>3</sub> amount to 13.1435 % and Co 2.2884 % w/w were the catalyst optimum metals composition. Result of catalyst surface area and acidity measurement tend to decrease proportional to the raising of total metal oxide contents. Spectrum FTIR of catalyst which pyridin adsorptions were appeared at 1447.50 and 1649.96 cm<sup>-1</sup>, the peak of wave number. It was the characteristics of Lewis and Bronsted acid.

