

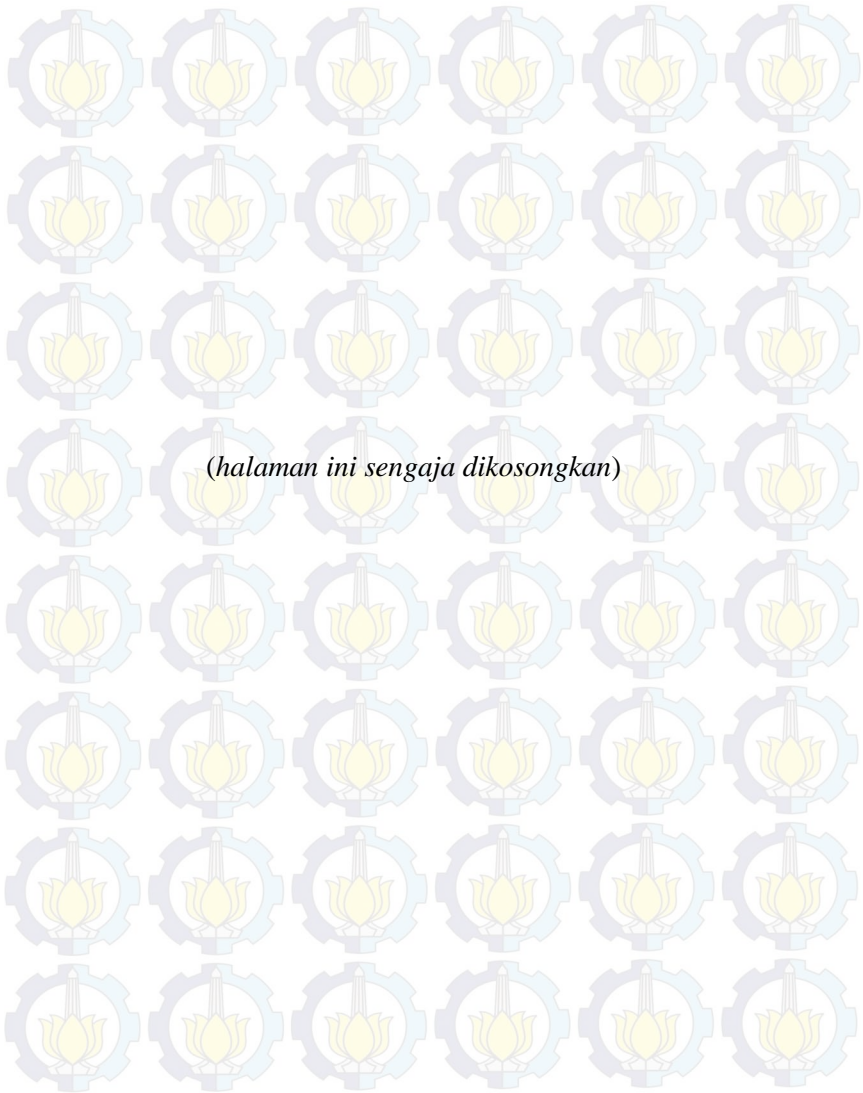
EFFECT OF DOLOMITE FLUX ADDITION IN CONVERTING PROCESS IN MATTE COPPER TO BLISTER

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ABSTRACT

This research is a further refining process of copper matte from smelting blast furnace in pyrometallurgy. Converting in this research is a oxidation of copper matte and copper that still has impurities with blowing oxygen and flux addition. This research is aimed to study some effects for purity of copper matte and its slag by adding CaCO_3 flux. Added flux are determined by $\text{CaO}:\text{Fe}$ ratio. $\text{CaO}:\text{Fe}$ ratio (adding Dolomite) in this research are 1:8 (34,33g), 1:5 (54,94g), 1:3 (116,7g), and without flux addition for comparison. This converting process is using 9 litre/minutes of blowing oxygen for 10 minutes. The product from this process, copper blister and slag, is examined by XRF and XRD to study Cu, Fe, and S composition and its compounds. The result of this research is the highest composition of Cu by adding lime in 1:3 ratio. In this ratio, the slag has the less of Cu losses in slag.

Keywords : *converting, CaCO_3 flux, copper matte, copper blister*



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