

## ABSTRACT

**Yusuf : Study Co-Precipitation Copper (II) Using Coprecipitant Al (OH)<sub>3</sub> in Batang Arau River City of Padang Measured with Atomic Absorption Spectrophotometric Method (SSA)**

A study in the development co-precipitation method and natural samples are applied to the Batang Arau river in Padang City. Sampling is done once in the month of November 2012, by random sampling on the selected point along the river which is considered to represent the river. Sampling points taken in the river upstream Lubuk Paraku Kor named sample 1, the sampling point in the middle of the river that is called hilalang padang besi as sample 2, the third sampling point downstream to the mouth of the river which is called the sample stream 3.

The analyzes were performed with the optimization of pH and volume optimization before it was applied to the sample. The result is the determination of the optimum pH conditions co-precipitant Al(OH)<sub>3</sub> with atomic absorption spectroscopy air acetylene flame occurred at pH 6, the optimum volume coprecipitant used in the co-precipitation method is the addition of Al(OH)<sub>3</sub> as much as 11 mL. Content of Copper (II) obtained at the optimum conditions at upstream 2,22ppm, in the middle of the river is 1,294 ppm and 1,2 ppm at the river mouth, with an average concentration factor of 104 times compared to direct measurement without the co-precipitation. Quality Standards based on PP. 82 Year 2001 Class II is still in the threshold limited 0,02 ppm.

***Keyword: co-precipitation, coprecipitant Al(OH)<sub>3</sub>, prakonsentrasi***