

## ABSTRACT

### ANALYSIS OF CAFFEINE CONTENT IN READY-TO-EAT COFFEE DRINKS USING THIN LAYER CHROMATOGRAPHY METHOD

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Caffeine is a colorless, crystalline powder that has a slightly bitter taste. One of them is ready-to-drink coffee, which can help increase concentration and is much loved. This study aimed to develop a semi-qualitative analysis of caffeine compounds in ready-to-drink coffee using the TLC method. The mobile phase used was methanol: ethyl acetate: acetic acid (3:1:6) with a saturation time of the mobile phase in the chamber of 20 minutes, and the stationary phase used silica gel 60 F254. The results obtained have a linearity ( $r$ ) of 0,991413. As for the caffeine content in ready-to-drink coffee brand A was 99,37 mg; brand B was 144,81 mg, and brand C was 96,42 mg. It can be concluded that digital image processing using the semi-quantitative TLC method of ready-to-drink coffee contains positive caffeine compounds.

**Keywords :** *caffeine, ready-to-eat coffee drinks, thin-layer chromatography (TLC), digital images proecess*