

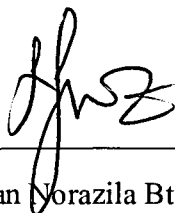
**EFFECT OF DIFFERENT PRECIPITATING AGENT CONCENTRATION
IN THE SYNTHESIS OF
 $\text{Tl}_{0.85}\text{Cr}_{0.15}\text{Sr}_2\text{CaCu}_2\text{O}_{7-\delta}$ BY COPRECIPITATION METHOD**

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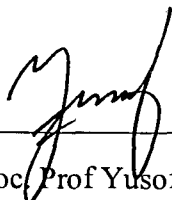
**Final Year Project Report Submitted in
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This Final Year Project Report entitle “Effect of Different Precipitating Agent Concentration in the Synthesis of $Tl_{0.85}Cr_{0.15}Sr_2CaCu_2O_{7.5}$ by Coprecipitation Method” was submitted by Mohd Nur Ehsan Bin Ibrahim, in partial fulfillment of the requirements of the Degree of Bachelor of Science (Hons.) Physics, in the Faculty of Applied Sciences, and was approved by



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ABSTRACT

EFFECT OF DIFFERENT PRECIPITATING AGENT CONCENTRATION IN THE SYNTHESIS OF $Tl_{0.85}Cr_{0.15}Sr_2CaCu_2O_{7-\delta}$ BY COPRECIPITATION METHOD

The effect of different precipitating agent concentration in the synthesis of $Tl_{0.85}Cr_{0.15}Sr_2CaCu_2O_{7-\delta}$ was systematically studied. Samples were synthesis using the Tl-free precursor coprecipitation method by varying the concentration of oxalic acid in the bulk preparation stage. The sample S1 is prepared using 0.06M oxalic acid concentration and the S2 sample is prepared using 0.1M concentration of oxalic acid. The phase formation of samples S1 and S2 is characterized using the Rigaku X-Ray Diffractometer. The transition temperature of samples S1 showed that the onset T_c is 102K and zero T_c is 99K while samples S2 showed that onset T_c is 102K and zero T_c is 98K. The T_c doesn't vary too much but there are different in the value of critical current density. The J_c of sample S1 is $15A/cm^2$ and sample S2 is $9A/cm^2$. Result are discussed in the effect of different precipitating agent concentration used in synthesis the samples with the value of J_c .