

**COMPARISONS BETWEEN XRD OF DIFFERENT BALL-
MILLED SAMPLES OF $\text{LiNi}_{1-x}\text{Co}_x\text{Fe}_y\text{O}_2$ AND $\text{LiNi}_{1-x}\text{Co}_x\text{Al}_y\text{O}_2$**

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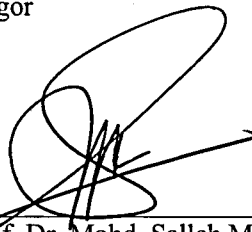
This Final Year Project entitled “Comparisons Between XRD of Different Ball-Milled Samples of $\text{LiNi}_{1-x}\text{Co}_x\text{Fe}_y\text{O}_2$ and $\text{LiNi}_{1-x}\text{Co}_x\text{Al}_y\text{O}_2$ ” was submitted by Nurdalila binti Mohd Nazeri, in partial fulfilment of the requirements for the Degree of Bachelor of Science (Hons.) Industrial Physics, in the Faculty of Applied Sciences, and was approved by



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ABSTRACT

$\text{LiNi}_{0.7}\text{Co}_{0.2}\text{Fe}_{0.1}\text{O}_2$ and $\text{LiNi}_{0.7}\text{Co}_{0.2}\text{Al}_{0.1}\text{O}_2$ with micron sized particle was prepared to obtain nano sized particle by using high energy ball milling (HEBM) method. After the milling process, it causes in reducing the crystallite sizes and more agglomerations to the samples. X-Ray Diffraction (XRD) and Scanning Electron Microscopy (SEM) were used to characterize the samples and all the results were analysed and discussed. The 24 hours of milling has changed the samples from micron size to nano size by using 0.3mm and 0.5mm diameter balls.