

Abstract Submitted
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**Synthesis of Nickel-Cobalt Layered
Double Hydroxide Nanostructures**¹ RAMONA LUNA², Univ of Texas, Rio
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velopment of novel energy storage materials has become an important area of study. The focus of this research is to synthesize nanostructured nickel-cobalt layered double hydroxide (Ni-Co LDH) directly on carbon cloth substrate with a high electrical conductivity and electrochemical stability. The morphology and structure of the different Ni-Co ratios were analyzed with X-Ray Diffraction (XRD) and Scanning Electron Microscopy (SEM). XRD results confirmed the success synthesis of the Ni-Co LDH. SEM images show that the morphology of the nanostructures on the carbon cloth vary as the Ni-Co ratios change. Given by their unique nano-architecture, this method provides an efficient route to synthesize well-controlled three dimensional Ni-Co LDH nanostructures for nanodevice application. It is important to continue investigating the electrochemical properties in the future.

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