

## **Title of presentation :**

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Contribution to the study of ternary metal compounds based on La-Ni-Mg, intended for electrochemical applications

## **Keywords**

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Hydrogen storage alloy, Mechanical alloying, nickel-metal hydride batteries, Charge and discharge galvanostatic polarization.

## **Abstract**

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The objective of our work is a contribution to the study of ternary compounds at the base of La-Ni-Mg, such as the compounds  $\text{La}_{1.5}\text{Mg}_{1.5}\text{Ni}_9$  and  $\text{La}_{1.5}\text{Mg}_{0.5}\text{Ni}_7$  belong to the family  $\text{AB}_3$  and  $\text{A}_2\text{B}_7$ , respectively. All these compounds are produced by mechanical grinding at different grinding times and mass ratio of beads / powder 8: 1.

The structural characterization is carried out by DRX in order to identify the different existing phases.

The electrochemical characterization is carried out through two methods of galvanic-static and potential-dynamic polarization in order to test the performance of these two compounds as active material for the anode of Ni-MH batteries.

## **Some information about my self**

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It is my great honor to be here to present my work entitled with

“Contribution to the study of ternary metal compounds based on La-Ni-Mg, intended for electrochemical applications”: application as negative electrode for Ni-MH battery.

Elaborated by myself Rakia Dahsa

I am 25 years old and I am from Tunisia, I grew up in a small island located in southern part of Tunisia, this island is famous for having the nicest beach in the World.

I am a Mgr. in physics, member of the Metal Hydrides Team of Mechanics, Materials and Processes Laboratory at the National Higher School of Engineering of Tunis