



Contribution ID: 751

Type: **Poster Presentation**

## **M1Po2D-08 [50]: Analysis of negative magnetoresistance behaviors in diluted granular multilayers system at low temperatures**

*Monday, 22 July 2019 14:00 (2 hours)*

In this work we will discuss several theories explaining the phenomena of negative magnetoresistance (magnetoconductivity) in diluted granular multilayers samples in insulating side of the Metal-Insulator Transition (MIT). These theories will be confronted with experimental measurements in order to try to provide physical explanations for these phenomena. We re-used in our modeling investigation, experimental data published by H. G. Silva et al [1]. Variable Range Hopping (VRH) conduction was observed in the samples at low temperatures with magnetic fields.

**Primary authors:** Prof. ECHCHELH, Adil (Laboratory of Energetic Engineering and Materials, Faculty of Sciences Ibn Tofail, Kenitra, Morocco.); Dr EL OUJDI, Abdellatif (Laboratory of Energetic Engineering and Materials, Faculty of Sciences Ibn Tofail, Kenitra, Morocco.); Prof. EL KAAOUACHI, Abdelhamid (Faculty of sciences Ibn Zohr, BP 8106 Poste de Hay Dakhla, 80000 Agadir Morocco)

**Presenter:** Prof. ECHCHELH, Adil (Laboratory of Energetic Engineering and Materials, Faculty of Sciences Ibn Tofail, Kenitra, Morocco.)

**Session Classification:** M1Po2D - Thermal, Electrical, and Magnetic Materials Properties