Thermoelectric properties of the ReCN

A. REYES-SERRATO, Centro de Nanociencias y Nanotecnologia UNAM, Ensenada, BC, 22800 Mexico, JORGE SOFO, Department of Physics, The Pennsylvania State University, University Park, Pennsylvania 16802, USA — We present thermoelectric properties of the new material, ReCN. Combining first principles band structure calculation with semi classical model analysis; we obtained the Seebeck coefficient as well as the electrical conductivity as a function of the relaxation time for the electrons. The results indicate the potential of the ReCN as a good thermoelectric material in the low region of the temperature.

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