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Structural, Specific heat and Magnetic Studies in $YCrO_3$ Doped with Praseodymium[1] EDUARDO VERDIN, Dpto. Fisica-Universidad de Sonora, ALEJANDRO DURAN, Centro de Nanociencias y Nanotecnologia-UNAM, FRANCISCO MORALES, ROBERTO ESCUDERO, Instituto de Investigaciones en Materiales-UNAM — Many applications and critical phenomena have been found in perovskite type compounds as ferroelectricity, ferromagnetism, multiferroicity among others. Materials that simultaneously show ferromagnetism and ferroelectricity have recently seen a significant revival based on the discovery of new compounds with a strong multiferroic coupling. One of these is the orthochromites family since both phenomena coexist in the same crystal structure. Here, we was studied the magnetism, specific heat and ferroelectric characteristics of the YCrO3 doped with Pr. Rietveld analysis shows that cell volume decreases as Pr doping. Besides, the Dzyaloshinskii-Moriya (D-M) exchange interaction depends of the Pr doping degree as a consequence a negative magnetization and strong changes in the coercive field appear. Here, these results are presented..

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