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X-ray magnetic circular dichroism spectroscopy investigation of ferromagnetic ordering in NdCoAsO VEMURU KRISHNAMURTHY, University of Tennessee, Martin, Ripley Center, Ripley, Tennessee, DAVE KEAVNEY, Advanced Photon Source, Argonne National Laboratory, Argonne, Illinois, MICHEAL MCGUIRE, BRIAN SALES, ATHENA SEFAT, DAVID MANDRUS, Oak Ridge National Laboratory, Oak Ridge, Tennessee, UTM COLLABORATION, APS, ANL COLLABORATION, ORNL COLLABORATION — Recently, the electronic properties of RMOAs (R= rare earth, M = transition metal such as Fe or Co) type 3d-transition metal based layered oxypnictides have attracted considerable interest, in view of the discovery of superconductivity in the FeAs compounds. Here, we would like to present the results of ferromagnetic ordering, element specific magnetic moments of Nd and Co in NdCoAsO, obtained by x-ray magnetic circular dichroism spectroscopy at Nd and Co sites. The nature of magnetic coupling between Co and Nd and its temperature dependence in relation to the bulk magnetization will be discussed.

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