

Mechanical Design of ANDES: a multi-purpose neutron diffractometer for the RA10

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The Argentinean Atomic Energy Commission (CNEA) is building a multi-purpose research reactor in Centro Atómico Ezeiza, Argentina, with commissioning planned for mid 2020. The RA-10 will be an open-pool facility for radioisotope production, materials irradiation and neutron techniques applications. Associated to this last goal there is a separate project to build the Argentinean Neutron Beams Laboratory (LAHN), also executed by CNEA and funded by the National Government. The first stage of LAHN project includes two instruments of particular application in (nuclear) materials research and development. One of them is ANDES (Advanced Neutron Diffractometer for Engineering and Science), a multi-purpose neutron diffractometer for materials science and engineering applications, able to perform a variety of analysis, both on intact objects and on small samples. The techniques available include strain scanning, texture measurement, and high intensity powder diffraction on a variety of environments. The development of this instrument is supported in 4 main areas: shielding design, mechanical engineering design, neutron optics and automation and control. In this work we present the advances in the mechanical design of the main components of the instrument. In particular we focus in the management procedures used to determine the optimum solution for each component

Formal Invitation Letter Required

Yes

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