

Diffuse Scattering Studies from a Martensitic Fe-Pd Alloy

Thursday, 12 November 2020 17:39 (1 minute)

From literature reports, Fe-Pd alloys in the vicinity of Fe-30at%Pd exhibit two martensitic transformations on being cooled from just above room temperature to about 100K. A preliminary study of a large single crystal of this composition at the KOALA beamline, not only showed evidence for these transformations but also revealed most interesting satellite reflections around certain Bragg reflections. The crystal has been studied further in two triple-axis experiments. The first was at TAIPAN, specifically to study elastic scattering and the second, at SIKA, to study quasi-elastic scattering both in the vicinity of certain Bragg peaks but also around the satellite reflections observed at KOALA. The results from both of these experiments will be discussed.

Level of Expertise

Experienced Research

Speakers Gender

Male

Do you wish to take part in the poster slam

Primary authors: Dr MCINTYRE, Garry (Australian Centre for Neutron Scattering); Dr RULE, Kirrily (Australian Centre for Neutron Scattering); Dr FINLAYSON, Trevor (University of Melbourne)

Presenter: Dr FINLAYSON, Trevor (University of Melbourne)

Session Classification: Poster Session

Track Classification: Magnetism & Condensed Matter