Neutron Diffraction Study of the Intermetallic Compound FeSi

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Neutron Diffraction Study of the Intermetallic Compound FeSi*

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Abstract

A powder neutron diffraction study has been made on the intermetallic compound, FeSi. From magnetic measurements this substance has been believed to be antiferromagnetic below 170°C. Neutron diffraction measurements at room temperature and at liquid nitrogen temperature, however, show no coherent antiferromagnetic intensity, thus ruling out any long range magnetic order. Some results of magnetic measurements and discussion are presented.

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