



Contribution ID: 366

Type: **Presentation**

From Para/Helimagnetic to Ferromagnetic Transition of Pulsed Laser Deposited Fe_{1-x}Co_xSi Thin Films

We report pulsed laser deposition synthesis and characterization of polycrystalline Fe_{1-x}Co_xSi thin films on Si (111). Ferromagnetism with significant magnetic hysteresis is found for all films including nominally pure FeSi which reveals transition from paramagnetic and helimagnetic to ferromagnetic for Fe_{1-x}Co_xSi for FeSi and Co doped FeSi.

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Track Classification: Track A - Condensed Matter Physics and Material Science