

Abstract Submitted
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Enhanced SDW transition temperature under hydrostatic pressure in Fe_{1.02}Se_{0.10}Te_{0.90} NAOYUKI KATAYAMA, University of Virginia, KAZUYUKI MATSUBAYASHI, University of Tokyo, JUSCELINO LEAO, NIST, SUNGDAE JI, University of Virginia, SUNG CHANG, NIST, YOSHIYA UWATOKO, TAKU SATO, University of Tokyo, SEUNGHUN LEE, University of Virginia, UNIVERSITY OF VIRGINIA TEAM, UNIVERSITY OF TOKYO COLLABORATION, NIST COLLABORATION — We will present the spin glass (SG) to spin density wave (SDW) transition in Fe_{1.02}Se_{0.10}Te_{0.90} under hydrostatic pressure. At ambient pressure, the present compound shows SG transition, characterized by a broad weak magnetic peak. By applying hydrostatic pressure, SG develops to SDW at $P_c \sim 0.5$ GPa and the sharp strong magnetic Bragg peak appears. The SDW transition temperature is increased up to ~ 250 K at 8 GPa, which is sharply contrast to the results of pressure experiments in LaFeAsO families and BaFe₂As₂ families.

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