

Abstract Submitted
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Effects of chemical pressure in CaFe_4As_3 single crystals LIANG ZHAO, VICTOR LEYVA, EMILIA MOROSAN, Rice University, RICE UNIVERSITY TEAM — CaFe_4As_3 is a recently discovered iron pnictide compound that shows complex magnetic and transport properties. In the present study, we are tuning the chemical pressure of the lattice by partially substituting As with P. The doped single crystals show systematic changes in the critical temperatures of both the spin density wave (SDW) and the incommensurate-to-commensurate transitions: the SDW temperature is slowly moving down, while the lower transition is moving to higher temperatures with increasing amounts of P.

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