Abstract Submitted
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A new tetragonal superconductor withTc = 3.5K XIYU ZHU[1], JIANZHONG LIU, YUFENG LI, SHENG LI, HUAN YANG, HAI-HU WEN, Nanjing University, CENTER FOR SUPERCONDUCTING PHYSICS AND MATERIALS, TEAM — We report the discovery of a new tetragonal superconductor at 3.5 K. Tetragonal structure has been found as a frequent platform for superconductivity, like cuprate, Iron pnictide materials. Very similar to these families, our semiconducting parent compound exhibits a charge density wave or spin density wave transition at the room temperature, according to the transport and magnetic measurements. With chemical doping, the CDW/SDW transition has been suppressed, and bulk superconductivity emerges up to 3.5K. The chemical doping also leads to a structure transition in this family.

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