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Cu substition of FeTe KAYA KOBAYASHI, SHINYA KAWAMOTO, KAZUMASA HORIGANE, JUN AKIMITSU, Aoyama Gakuin University — One of the typical Fe-based superconductors, Fe(Te,Se) has the simplest structure. One end of the material, FeTe does not show superconducting transition but the structural transition around 60 K which is a sharp contrast to another end, FeSe. The structural transition is suppressed when Se is substituted for Te for certain amount, accompanied by superconductivity. We have synthesized various ratio of Cu-substituted FeTe to suppress the structural transition. The suppression and the superconductivity are independent against our expectation and new intermediate magnetic transitions were observed.

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