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Electronic state modulation of iron selenide by intercalating copper KAYA KOBAYASHI, Y ITO, F NAGAI, S MATSUMOTO, T KAMBE, Y BENINO, T NAMBA, Okayama University — FeSe is one of the iron-based superconductors that have the simplest structure. Its superconducting properties are easily modulated by chemical and mechanical method, such as alkali metal intercalation and thinning down to monolayer. The synthesis of copper intercalation by melt method brought the structural change of the system in increasing the copper amount. To investigate the superconducting property of the system, we have synthesized copper intercalated FeSe single crystal. The decrease of superconducting transition temperature observed here is discussed in relation to its modulation on to electronic state of irons.

Kaya Kobayashi
Okayama University

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