

# $\text{Fe}_x\text{Cu}_{1-x}\text{Rh}_2\text{Se}_4$ 의 결정구조적 전이에 관한 연구

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## A Study on the Crystallographic Transition of $\text{Fe}_x\text{Cu}_{1-x}\text{Rh}_2\text{Se}_4$

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The crystal structure of  $\text{Fe}_x\text{Cu}_{1-x}\text{Rh}_2\text{Se}_4$  is found to transform from spinel to monoclinic structure as iron concentration increases. The origin of this transition seems to be in the change of ionic radius of iron ions from smaller one of  $\text{Fe}^{3+}$  to larger one of  $\text{Fe}^{2+}$ . Magnetic susceptibility measurements show that long-range superexchange interaction in the spinel structure is stronger than short-range one in the monoclinic structure.