

Abstract Submitted
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Crystal **Struc-**
ture and Superconductivity of $\text{FeSr}_2(\text{Y,Nd})(\text{Cu,Zn})_2\text{O}_{6+\delta}$ WUERNISHA
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plied Physics, National Defense Academy, HIDEAKI KITAZAWA, (1) Quantum
Beam Center, (2) MANA, NIMS — We have prepared the polycrystalline samples
of $\text{FeSr}_2\text{Y}_{0.75}\text{Nd}_{0.25}(\text{Cu}_{1-x}\text{Zn}_x)_2\text{O}_{6+\delta}$ solid solution system ($x = 0, 0.01, 0.02, 0.05$)
to investigate the Zn substitution effects. The DC magnetization measurement re-
sults showing the samples exhibited decreasing in T_c while increasing the Zn content,
 x , and the superconductivity was disappeared around $x = 0.05$. Crystal structure
has been analyzed by using X-ray and neutron powder diffraction data. The rela-
tion between the superconductivity and crystal structure is discussed based on the
experimental results.

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