

Abstract Submitted
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**Ternary iron pnictides AFe_2As_2 (A = alkali metal) and LiFeAs:
A systematic study of magnetic properties and transport measurements**
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istry at the University of Houston, CHING-WU CHU, TcSUH and the Department
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— We have observed superconductivity for the alkali metal AFe_2As_2 , where A =
Cs, Rb, and K, at temperatures below 4 K. In addition to the above mentioned
ternary compounds we also were able to synthesize and measure the metastable
superconducting $NaFe_2As_2$, which has a considerably higher superconducting tran-
sition at 25 K. The ternary iron pnictides AFe_2As_2 are all considered strongly hole
over-doped superconductors. LiFeAs is superconducting with a T_c of 18 K. Thermo-
electric power measurements indicate that a majority of carriers are electron like,
which supports our conjecture that LiFeAs is a stoichiometric superconductor. The
effects of high pressure on the T_c will also be discussed.

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