

Abstract Submitted
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Evolution of super-
conductivity and magnetism in $\text{La}_{1-x}\text{Yb}_x\text{Ru}_2\text{P}_2$. CONNOR RONCAIOLI,
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sity of Maryland — LaRu_2P_2 , with a 4.1 K transition, is the first known pnictide-
based superconductor. Sharing structural and electronic elements similar to those
of the unconventional Fe-pnictide superconductors, it is of interest to investigate
the parameter space in which a superconducting ground state survives. We present
preliminary indications of more interesting magnetic behavior and structural tun-
ing behavior when paramagnetic Yb is substituted for La in $\text{La}_{1-x}\text{Yb}_x\text{Ru}_2\text{P}_2$, and
investigate potential heavy fermion behavior in the Yb end-member of this series.

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