

Abstract Submitted
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Low temperature specific heat study on $\text{Pr}_{0.88}\text{LaCe}_{0.12}\text{CuO}_{4-\delta}$
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HAIHU WEN, National Laboratory for Superconductivity, Institute of Physics &
Center for Condensed Matter Physics, Beijing 100080, China — By annealing the
electron-doped $\text{Pr}_{0.88}\text{LaCe}_{0.12}\text{CuO}_{4-\delta}$ (PLCCO) in vacuum at different tempera-
tures, we have successfully obtained several superconducting PLCCO samples with
different T_c . The specific heat of all the samples show a $1/T^2$ behavior below 1K.
Above 1K, the low field specific heat can be fitted by $\gamma(H)T + \beta T^3$, where the $\gamma(H)$
is the Sommerfeld coefficient. We present magnetic field dependent data of $\gamma(H)$ for
several samples of PLCCO and discuss the evolution of $\gamma(H)$ as PLCCO is tuned
from an antiferromagnetically ordered insulator to a $T_c=25$ K superconductor.

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