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Thermoelectric Power of $\mathbf{RO_{1-x-y}F_xFeAs}$ FENG CHEN, KALYAN SASMAL, MELISSA GOOCH, FENGYAN WEI, BERND LORENZ, YUYI XUE, C.W. CHU[1], Dept. of Physics and Texas Center for Superconductivity, University of Houston, Houston, TX 77204-5002, BING LV, ZHONGJIA TANG, ARNOLD GULOY, Dept. of Chemistry, University of Houston, Houston, TX 77204 — The thermoelectric power $S(T)$ has been measured on the $RO_{1-x-y}F_xFeAs$ samples with $0 \leq x \leq 0.3$ and $0 \leq y \leq 0.5$ and with the rare earth R = La, Ce, Sm and Pr. Together with Hall and lattice parameter studies, systematical x-dependency is observed, although rather weak for samples with $x > 0$ and $y = 0$. The $S(T)$ of the undoped samples with $x = y = 0$, however, appears to have rather different shape and amplitude. By comparing with the resistivity drop around 150 K, the change seems to be associated with the spin/lattice instability previously proposed.

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