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Superconductivity in $Sr(Fe,Ni)_2As_2$ single crystals¹ NICHOLAS BUTCH, SHANTA SAHA, KEVIN KIRSHENBAUM, JOHNPIERRE PAGLIONE, Center for Nanophysics and Advanced Materials, Dept. of Physics, University of Maryland, College Park — Iron pnictide compounds are the subject of intense research efforts because of their relatively high superconducting critical temperatures and the interplay of magnetic, structural, and superconducting phases found in these materials. Of the known superconducting iron pnictide compounds, those with the ThCr₂Si₂ structure appear to have the best chemical homogeneity. We present transport, magnetic, and specific heat measurements of Ni-substituted $SrFe_2As_2$ flux-grown single crystals.

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