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Superconducting and Magnetic Properties of $\mathbf{FeSe_{1-x}As_x}$[1] KHALIL ZIQ, T. OWOLABI, A. SALEM, King Fahd University of Petroleum and Minerals — Magnetic and transport measurements have been performed on $\mathbf{FeSe_{1-x}As_x}$ samples in the normal and superconducting state. The normal state resistivity increases to a broad maximum (T_m) near room temperature that persists down to about 80K then linearly drops down to just above the superconducting transition temperature (T_c). The normal state behavior of the resistivity is found to insensitive to the applied magnetic field. The normal state magnetic measurements revealed ferromagnetic like behavior for samples with As-doping above x= 4%. Moreover; Tc is reduced drastically with increasing As-concentration above 2%.

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