Superconductivity and Magnetism in the Ruthenocuprates

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Abstract - The ruthenocuprates are high temperature superconductors, which have raised a substantial interest due to the simultaneous presence of the transition metal magnetism and superconductivity. The compounds represent a complex and experimentally challenging research arena, with interesting recent experimental developments. Without striving for completeness, the author reviews some key properties of RuSr$_2$RECu$_2$O$_8$, RuSr$_2$RE$_{2-x}$Ce$_x$Cu$_2$O$_{10-y}$, and of few derivative compounds of the ruthenocuprate family.

Manuscript received September 20, 2007; accepted October 24, 2007. Reference No. CR3, Category 1.