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Electronegativity and Valence Electron Spectrum of Room Temperature Ferromagnets¹ O. PAUL ISIKAKU-IRONKWE, The Center for Superconductivity Technologies, Abuja FCT, Nigeria — Materials that exhibit room temperature ferromagnetism (RTFM) are of interest in the fabrication of spintronic devices. RTFM has been observed in semiconductors, oxides and other non-magnetic materials and nanocrystals. There is yet no consensus on the origin of RTFM or how to predict the next RTFM. Here we study the electronegativity and valence electron count of known RTFMs as a step to understanding this fascinating family of materials. Understanding the process of RTFM may aid the search for room temperature superconductivity (RTS) — a similar phenomenon.

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