

Abstract Submitted
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XPS and UV/Vis MCD studies of M[TCNE] organic-based magnets SAAD JANJUA, University of Missouri Kansas City, KONSTANTIN POKHODNYA, Center for Nanoscale Science and Engineering, Fargo,ND, MARCUS DRIVER, ANTHONY CARUSO, University of Missouri Kansas City, CARUSO'S RESEARCH GROUP TEAM — M[TCNE] (M = V, Fe, Mn, Ni; TCNE = tetracyanoethylene) organic-based magnets provide a systematic means of studying magnetic superexchange by varying the 3d t_{2g} and e_g filling. X-ray photoemission binding energy spectra of core electrons C (1s), N (1s) and M (3p) were used to study valency and bond type, giving a correlation between binding energy and transition temperature. UV/Vis Magnetic Circular Dichroism studies were conducted to investigate lowest unoccupied state and onsite Coulomb repulsion for both M 3d and TCNE π^* . This talk will focus on providing empirical evidence of the near Fermi edge spin polarized electron structure in the context of magnetic exchange

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