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Magnetism in Metal Clusters FORREST PAYNE, WEI JIANG, L.A. BLOOFIELD, University of Virginia — We have measured the magnetic moments of clusters of Cobalt, Niobium, and Chromium, ranging in size from <20 to 200 atoms. Improvements to our cluster source have allowed us to produce smaller and colder (∼60K) clusters than we were able to study in previous work and to study each cluster size individually. We will present measured values for the magnetic moments of these clusters as functions of size, temperature, and applied field. We have also investigated superparamagnetic behaviors of these clusters, looking for deviations from that behavior. This presentation is based upon work supported by the National Science Foundation under Grant No. DMR-0405203.

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