Demagnetization field of conic domains ROSS DICKINSON, Physics Department, University of West Florida, Pensacola, FL 32514, TIMOTHY ROY-APPA, Chemistry Department, University of West Florida, Pensacola, FL 32514, GUOQING WU, Physics Department, University of West Florida, Pensacola, FL 32514 — The demagnetization field associated with a sample geometry is of particular interest in NMR spectroscopy and Knight shift analysis. The distribution of a non-uniform demagnetization field is calculated for samples with conical shapes. The results are compared for samples with paraboloid, ellipsoid and hyperboloid geometries at similar aspect ratios. We find that the demagnetization field is enhanced at the vicinity of the sample surface with the largest values found in the paraboloid geometry.

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