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Coulomb Sum Rule at 0.55 GeV/$c \leq |\vec{q}| \leq$ 1.0 GeV/c[1] HUAN YAO, Temple University, JLAB HALL A COLLABORATION — In order to test the Coulomb sum rule in nuclei, a precision measurement of inclusive electron scattering cross sections in the quasi-elastic region was performed at Jefferson Lab. Incident electrons of energies ranging from 0.4 GeV/c to 4 GeV/c scattered off ^{4}He, ^{12}C, ^{56}Fe and ^{208}Pb nuclei at four scattering angles (15 °, 60 °, 90 °, 120 °) and scattered energies ranging from 0.1 GeV/c to 4 GeV/c. The Rosenbluth method is used to extract the transverse and longitudinal response functions at three-momentum transfers 0.55 GeV/$c \leq |\vec{q}| \leq$ 1.0 GeV/c. Proper Coulomb corrections will be applied. The Coulomb Sum will be determined in the above $|\vec{q}|$ range and compared to predictions. Progress of data analysis will be presented.

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