

# Core Hole - Electron Interaction In Inelastic X-Ray Scattering

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This work introduces a method for calculating the dynamic structure factor for inelastic scattering from the core electrons of solids. The interaction between the excited electron and the core hole is taken into account using recently developed *ab initio* scheme. The calculated results are compared with the experimental inelastic x-ray scattering results for selected materials. The effect of the core hole potential in its different aspects is studied.