Layered Mirror Reflectivity

- Layer Material: Al2O3 (enter chemical formula).
- Layer Density: 2.9 gm/cm^3 (enter negative value to use tabulated values.)
- Layer Thickness: 4 nm
- Top Surface Roughness: 4 nm (Sigma).
- Substrate Material: Al (enter chemical formula).
- Substrate Density: -1 gm/cm^3 (enter negative value to use tabulated values.)
- Substrate Roughness: 0 nm (Sigma).
- Polarization: -1 (-1 < pol < 1) where s=1, p=-1 and unpolarized=0.
- Scan Photon Energy (eV) from 30 to 1000 in 10 steps (< 500).
  (NOTE: Energies must be in the range 30 eV < E < 30,000 eV, Wavelength between 0.041 nm < Wavelength < 41 nm, and Angles between 0 & 90 degrees.)
- At fixed Angle (deg) = 1

To request a Linear Plot press this button: Submit Request

To reset to default values, press this button: Reset.

Explanation of Tables

Material
: The chemical formula is required here. Note that this is case sensitive (e.g. CO for Carbon Monoxide vs Co for Cobalt).

Density
: If a negative value is entered, the chemical formula is checked against a list of some common materials. If no match is found then the density of the first element in the formula is used.

Grazing Angle
: In keeping with the standard notation for the x-ray region the incidence angle is measured relative to the surface (NOT the surface normal).

Polarization
: Pol = 1 corresponds to s-polarization (electric field perpendicular to the plane of incidence). Pol=-1 corresponds to p-polarization (electric field in the plane of incidence). Pol=0 for unpolarized radiation.

Output
: A GIF plot is generated for viewing the results. For numerical values, follow the link above the GIF plot to an ASCII text file. For a nice looking printed copy, you might try using the EPS file.