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### 1 Potential Scattering

#### 1.1 ICS Curves

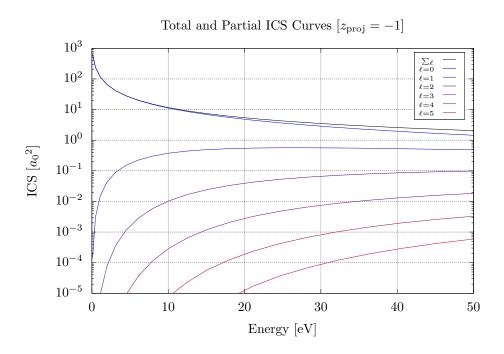


Figure 1: The total ICS curve (shown in black) and the partial ICS curves (shown in blue-to-red) are presented, across projectile energies  $0\,\mathrm{eV}$  to  $50\,\mathrm{eV}$ , for an electron projectile. Note that  $l_\mathrm{max}=5$ .

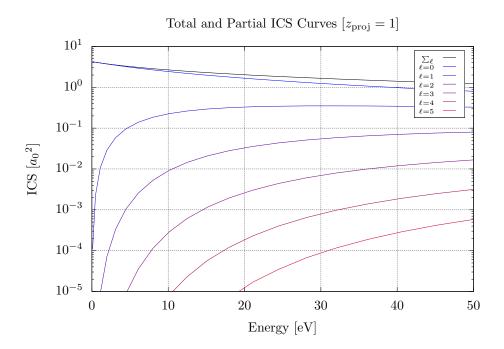


Figure 2: The total ICS curve (shown in black) and the partial ICS curves (shown in blue-to-red) are presented, across projectile energies  $0\,\mathrm{eV}$  to  $50\,\mathrm{eV}$ , for a positron projectile. Note that  $l_\mathrm{max}=5$ .

### 1.2 DCS Curves

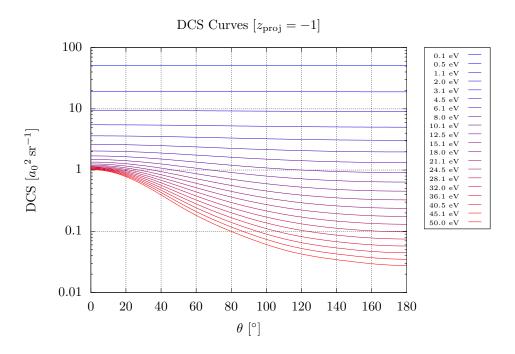


Figure 3: The DCS curves (shown in blue-to-red) are presented, across scattering angles 0° to 180°

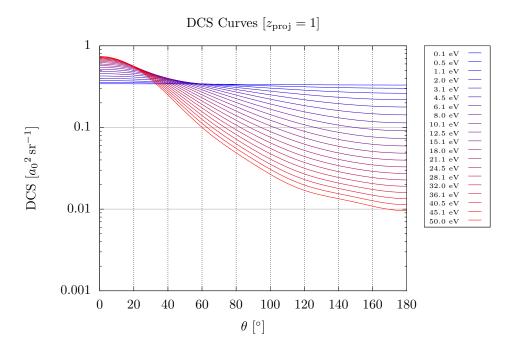


Figure 4

### 1.3 DCS Curve Convergence

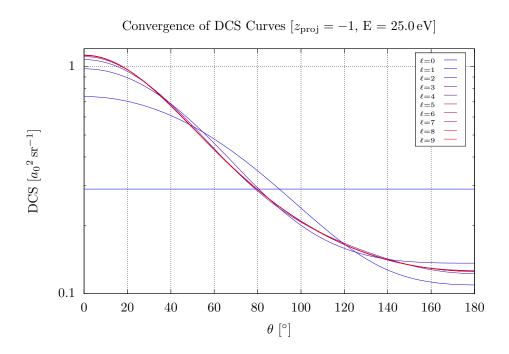


Figure 5

- 2 Derivation
- 3 Dimensional Analysis