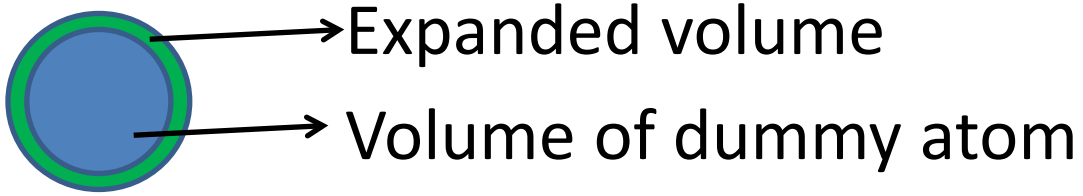
In elementary mathematics the volume of the spherical shell is evaluated in the below manner:



$$\Delta V = V_o - V_m$$

$$\Delta V = \frac{4}{3}\pi r_o^3 - \frac{4}{3}\pi r_m^3$$

$$\Delta V = \frac{4}{3}\pi[r_o^3 - r_m^3]$$

Using this kind of a relation in Fourier transform expression:

$$\exp(-\pi s^2[V_o^{\frac{2}{3}} - V_m^{\frac{2}{3}}])$$

$$V = (4\pi/3)\, r^3$$

$$\exp(-\pi s^2[((\frac{4\pi}{3})^{\frac{2}{3}}(r_o^3)^{\frac{2}{3}}) - ((\frac{4\pi}{3})^{\frac{2}{3}}(r_m^3)^{\frac{2}{3}})]$$

$$\exp(-\pi s^2(\frac{4\pi}{3})^{\frac{2}{3}}[r_o^2 - r_m^2]$$

This fraction is given as 3/2 in Crysol paper.

$$G(s) = (r_0/r_m)^3 \exp\left[-(4\pi/3)^{3/2}\pi s^2(r_0^2 - r_m^2)\right]$$

Svergun et al. 1995 J. Appl. Cryst

- We could not understand why the fraction is given as 3/2 instead of 2/3 in your paper.