

- Left-click and hold to rotate
- Middle click and scroll to zoom
- 5dZfUf fa bS
- Navigate views with buttons.

Atomic positions:

$$0\ 0\ 0 \text{ and } \frac{1}{2}\frac{1}{2}\frac{1}{2}, \frac{1}{2}\frac{1}{2}\frac{1}{2}, 0\frac{1}{2}\frac{1}{2}$$

Atoms touch along body diagonal:

$$\text{Coordination} = 12$$

Atoms per unit cell:

$$n = N_i + \frac{N_f}{2} + \frac{N_c}{8} = 4$$

Lattice parameter

$$a = 2r_{\text{Al}}/\sqrt{2}$$

Atomic packing factor

$$(\text{APF}) = \frac{n V_{\text{atom}}}{V_{\text{u.c}}} = 0.74$$

Calculate density:

$$\rho = \frac{n A}{V_{\text{u.c}} N_A}$$