

### Packing Possibilities Assuming Anion is Larger Than Cation<sup>a</sup>

		Coordination Number (max)				
anion's lattice	cation's hole	cation	anion	$r_{\text{cation}}/r_{\text{anion}}$	base stoichiometry <sup>b</sup>	other stoichiometries <sup>b,c</sup>
simple cubic	cubic	8	8	0.732 - 0.999	1:1	1:2, 1:4
face-centered	octahedral	6	6	0.414 - 0.732	1:1	1:2, 2:3, 1:3
face-centered	tetrahedral	4	8	0.225 - 0.414	2:1	1:1, 1:2, 3:2

<sup>a</sup> when cations are larger than anions, simply reverse their roles in the table

<sup>b</sup> ratio is cation:anion assuming all holes are filled

<sup>c</sup> assuming that some fraction of the holes remain unfilled