

1. Procijenite kakva će biti topljivost  $\text{KBrO}_3$ .
2. Objasnite topljivost  $\text{MgCO}_3$ .
3. Poredajte po topljivosti litijeve halogenide i objasnite.
4. Za koje od soli  $\text{Ag}_2\text{SeO}_4$ ,  $\text{K}_3\text{PO}_4$ ,  $\text{ZnSO}_4$ ,  $\text{Th}_3(\text{PO}_4)_4$  se može očekivati da će biti slabo topljive?
5. Koji bi mogli biti uzroci poprilično loše topljivosti aluminijske fosfata?

Different Types of Atomic Radii<sup>a</sup> for Selected Atoms

Element	Cationic	Covalent	Metallic	Anionic	van der Waals	Cov-Cat <sup>b</sup>	An-Cov <sup>b</sup>
Li	90	134	155		180	44	
Na	116	154	190		230	38	
K	152	196	235		280	44	
Be	59	125	112			66	
Mg	86	145	160		170	59	
B	41	90	98			49	
Al	67	130	143			63	
Ga	76	120	140		190	44	
In	94	144	158		190	50	
Tl	102	147	159			45	
N		70		132	150		62
P		110	128		185		
As	60	122	148		200	62	
Sb	74	143	166		220	69	
O		73		126	150		53
S	43	102	127	170	180	59	68
Se	56	117	140	184	190	61	67
Te	70	135	160	207	210	65	72
F		71 (54) <sup>c</sup>		119	155		48 (65) <sup>c</sup>
Cl	41	99		167	180	58	68
Br	53	114		182	190	61	68
I	67	133		206	204	66	73

SOURCES: Ionic radii are from Table C of this text; covalent and van der Waals radii are from J. E. Huheey, E. A. Keiter, and R. L. Keiter, *Inorganic Chemistry: Principles of Structure and Reactivity*, 4th ed., Harper-Collins, New York, 1993, p. 292; metallic and some covalent radii are from M. C. Ball and A. H. Norbury, *Physical Data for Inorganic Chemists*, Longman, London, 1974. The metallic radii are Pauling's metallic radii adjusted to correspond to a coordination number of 12 for the metal atoms.

<sup>a</sup>Units are in picometers (pm).

<sup>b</sup>The column headed "Cov-Cat" gives the difference of the covalent and cationic radii of the element; the column headed "An-Cov" gives the difference of the anionic and covalent radii.

<sup>c</sup>Values suggested by R. J. Gillespie and E. A. Robinson, *Inorg. Chem.*, **31**, 1960 (1992); see also Section 3.1 of this text.