

APOLLO

The metallic model

HL

Chemistry

First assessment 2025

4 questions | questions

11. Which answer shows the correct order of metallic bond strength from strongest to weakest?

- A. $\text{Al} > \text{Mg} > \text{Na} > \text{K}$
- B. $\text{Al} > \text{Mg} > \text{K} > \text{Na}$
- C. $\text{Na} > \text{K} > \text{Mg} > \text{Al}$
- D. $\text{K} > \text{Na} > \text{Mg} > \text{Al}$

- 11.** Which statement best explains the malleability of magnesium metal?
- A. The metal lattice is held together by the attraction between magnesium ions.
 - B. The outer shell electrons of magnesium are free to move.
 - C. The layers of magnesium ions can slide relative to each other.
 - D. There are strong attractions between the magnesium ions and the free moving electrons.

- 10.** Which type of material is a good conductor of heat and electricity in solid and liquid states, is insoluble in water, and typically has a high melting point?
- A. Covalent molecular
 - B. Covalent network
 - C. Ionic
 - D. Metallic

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11. What is the explanation for the malleability of metals?

- A. The bonds are strong.
- B. The bonds are weak.
- C. The bonds involve free electrons.
- D. The bonds do not have a specific direction.