

2015 AP[®] CHEMISTRY FREE-RESPONSE QUESTIONS

Compound	Melting Point (°C)
LiI	449
KI	686
LiF	845
NaF	993

6. A student learns that ionic compounds have significant covalent character when a cation has a polarizing effect on a large anion. As a result, the student hypothesizes that salts composed of small cations and large anions should have relatively low melting points.
- (a) Select two compounds from the table and explain how the data support the student's hypothesis.
- (b) Identify a compound from the table that can be dissolved in water to produce a basic solution. Write the net ionic equation for the reaction that occurs to cause the solution to be basic.