

## Related Problem with Solution

Q) Why are lithium salts commonly hydrated and those of the other alkali metal ions usually anhydrous?

Ans : Lithium is the smallest in size among the alkali metals. Hence,  $\text{Li}^+$  ion can polarize water molecules more easily than other alkali metals. As a result, water molecules get attached to lithium salts as water of crystallization. Hence, lithium salts such as trihydrated lithium chloride ( $\text{LiCl} \cdot 3\text{H}_2\text{O}$ ) are commonly hydrated. As the size of the ions increases, their polarizing power decreases. Hence, other alkali metal ions usually form anhydrous salts.