

Answer on the question #54599 – Chemistry – General chemistry

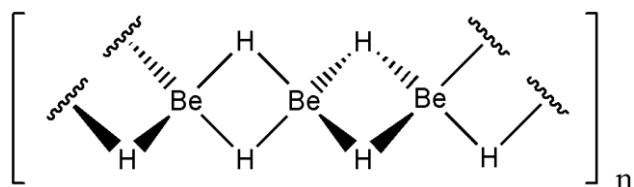
Question:

Why is beryllium hydride polymeric in nature? Discuss the structure of polymeric beryllium hydride.

Answer:

Beryllium hydride has intermediate properties between ionic and covalent, being electron-deficient and polymeric with bridging hydrogen atoms.

Polymer structure formation is caused by the chemical bonding involving bridging hydrogen atoms (e.g., Be–H–Be):



In this structure, beryllium exhibits the coordination number equal to 4. Also, one should mention that the structure is not planar, the space organization is tetrahedral chain.