

Process for preparing alkali metal cyanide and alkaline earth metal cyanide granules and the high purity alkali metal cyanide granules obtainable thereby

Abstract

The invention relates to a process for the direct preparation of alkali metal cyanide and alkaline earth metal cyanide granules from an HCN-containing gas and an aqueous solution or suspension of an alkali metal or alkaline earth metal hydroxide.

Reaction is performed in a reactor for fluidised bed spray granulation, wherein a solution or suspension of the hydroxide is sprayed onto seed granules of the cyanide being prepared and at the same time a hydrogen cyanide-containing gas is supplied to the reactor and water is evaporated by means of a fluidising gas.

The preferred fluidising gas is steam. The reaction gases from a BMA or Andrussow process may be quenched with water and the gas mixture used as fluidising gas.

By using a CO₂-free HCN-containing gas, alkali metal cyanide granules with an outstanding combination of properties, including a concentration of alkali metal carbonate and alkali metal formate together of less than 0.4 wt.%, are obtainable.

Figure 1