

Abstract

A production system and method for insoluble sulfur. The production system comprises a polymeric kettle (100) having a first discharge port and a quench tower (200) having a feed port, wherein the first discharge port is in communication with the feed port. The quench tower (200) comprises a cylindrical housing (210), a granulation device (220) and a shear pump (230). A solvent inlet (214) and a quenching agent inlet (215), which are respectively used for providing a solvent and a quenching agent, are arranged on the side wall of the housing (210). The production method comprises: raising the temperature of liquid sulfur under the protection of an initiator and nitrogen to perform polymerization reaction; introducing the polymerized material into the quenching tower and sequentially carrying out granulation and quenching treatment; in the quenching tower, carrying out solvent curing and extraction integrated treatment on the quenched product; and in the quenching tower, carrying out liquid phase circulating crushing and extraction integrated treatment on the cured and extracted product.