

Reaction tube and method for producing hydrogen cyanide

Abstract:

The reaction tube for preparing hydrogen cyanide comprises a cylindrical tube composed of ceramic, a catalyst comprising platinum applied to the inner wall of the tube
5 and also at least one insert composed of ceramic, having three or four fins pointing from the tube axis to the inner wall of the tube, which is inserted into the cylindrical tube, wherein the fins divide the tube interior space into substantially straight channels with substantially
10 identical circle segment cross sections and wherein the mean gap between the ends of the fins and the inner wall of the tube is in the range of 0.1 to 3 mm. In the method for preparing hydrogen cyanide, ammonia and at least one aliphatic hydrocarbon having 1 to 4 carbon atoms are
15 reacted in the reaction tube at 1000 to 1400°C.

Fig. 1