MIXED PHASE FIXED BED REACTOR DISTRIBUTOR

ABSTRACT

The uniform distribution of mixed phase fluid stream on to the top of a contact bed in a reactor chamber is provided by a horizontal tray with a plurality of spaced-apart, vertically disposed chimneys extending through the tray. These chimneys have a first end to receive liquid and gas above the tray and a second end for distributing the liquid and gas downwardly below the tray. Importantly, the second end is provided with a spray generating device located below the tray for producing a conical downward spray of the mixed fluid phase onto the top surface of a bed of contact material positioned below the tray. The spray generating devices for producing the conical spray are located at positions so that the spray of the mixed fluid stream from one spray generating device as it impinges on the top surface of the fixed bed, will overlap the spray from an adjacent spray generating device.

Figure 1