A FLUIDIZED BED POLYMERIZATION APPARATUS AND AN OLEFIN POLYMERIZATION PROCESS

ABSTRACT

In order to perform gas phase olefin polymerization by using a fluidized bed vessel, a present apparatus has a device for measuring temperature or temperature distribution on the external wall surface of the vessel and a controlling means which predicts progressive state of reaction inside the vessel from the measurement, finds difference between the measured value and a target value memorized beforehand and changes polymerization conditions.

In this apparatus, thermoelectric thermometer is installed on the external wall surface of the vessel; or an infrared temperature measuring device, around the periphery of the vessel, thereby temperature or temperature distribution of the external wall surface can be measured. Accordingly, it is made possible to inhibit the generation of polymer mass, and to operate the polymerization apparatus stably for a long period of time.

Further, temperature or temperature distribution of the vessel can be measured with high accuracy, thereby, change and countermeasure of polymerization condition becomes easily by comparison with a target value and control depending on the result of it.

Figure 2