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PROCESS AND APPARATUS FOR PRODUCING POLYBUTYLENE
TEREPHTHALATE

ABSTRACT OF THE DISCLOSURE

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Polybutylene terephthalate having good heat stability and excellent hydrolysis resistance is continuously produced in a series of a first reactor for reacting an aromatic dicarboxylic acid comprising terephthalic acid as a main ingredient or a derivative thereof with a glycol comprising 1,4-butanediol as a main ingredient, thereby producing an oligomer with an average degree of polymerization of 2.2 to 5, a second reactor for polycondensating the oligomer from the first reactor, thereby preparing a low polymerization product with an average degree of polymerization of 25 to 40, and a third reactor for further polycondensating the low polymerization product from the second reactor, thereby producing a high molecular weight polyester with an average degree of polymerization of 70 to 130, or followed by a fourth reactor for further polycondensing the polyester from the third reactor to an average degree of polymerization of 150 to 200, thereby producing a high molecular weight polyester. Another third reactor or a plurality of third reactors can be provided in parallel to the third reactor, thereby producing different kinds of polybutylene phthalate with different degrees of polymerization from that produced in the main line of the third and fourth reactors or adjusting operating conditions of each of a plurality of the third reactors to increase kinds, precise quality.

Figure 1