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(54) Title: APPARATUS AND PROCESS FOR THE GAS-PHASE POLYMERIZATION

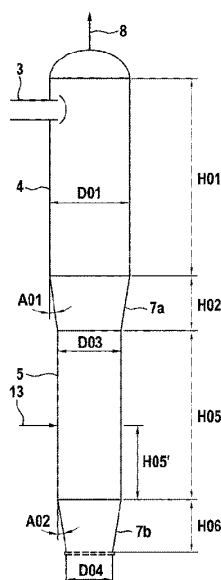


Figure 2

(57) Abstract: Apparatus for carrying out a catalytic gas-phase olefin polymerization comprising a first polymerization zone for growing polymer particles to flow upward under fast fluidization or transport conditions, a second polymerization zone for the growing polymer particles to flow downward, and a gas/solid separation zone; wherein the second polymerization zone has an upper part being connected to the separation zone and a lower part being connected to the upper part; wherein the ratio of the height H01 of the separation zone to the diameter D01 of the separation zone is 2.5 to 4.5; and process for carrying out a catalytic gas-phase olefin polymerization in the apparatus.

WO 2021/155977 A1

[Continued on next page]

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