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(54) Title: PROCESS FOR MAKING A LINEAR ALPHA-OLEFIN OLIGOMER USING A HEAT EXCHANGER

(57) Abstract: The invention pertains to a process for making a linear alpha-olefin oligomer in a reactor comprising a liquid and a gas phase, comprising the steps of catalytically oligomerizing ethylene in the presence of a nickel, palladium, cobalt, titanium, zirconium, hafnium, vanadium, chromium, molybdenum or tungsten complex, to the alpha-olefin oligomer with an average molecular weight between 50 and 350 under release of heat, and removing the heat with a heat exchanger, which is not in direct contact with the liquid phase, using at least part of the gas phase as a coolant medium. The invention further relate to an apparatus to perform said process.

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