

ABSTRACT**Method for producing linear α -olefins**

The invention relates to a method for producing linear α -olefins, wherein ethylene 1a in the liquid phase is fed into the oligomerisation reactor 2. The oligomerisation reactor 2 has a mechanical stirring mechanism 2a, in order to ensure optimum blending of the liquid ethylene and the catalyst in the liquid phase. Vaporised ethylene together with light α -olefins and a small proportion of the organic solvent are removed from the top of the oligomerisation reactor 2. The gas mixture removed from the top of the reactor 2, together with gaseous fresh ethylene 7, is condensed by means of a heat exchanger 3 and a separator 4. The liquid phase removed from the separator 4 is returned by means of a circulation pump 5a as a liquid ethylene batch 1a to the oligomerisation reactor 2. The liquid products of the oligomerisation reaction are removed laterally from the bottom of the reactor 2.

Figure 2