

Abstract

A PROCESS FOR PRODUCING 1-HEXENE

A process for preparing 1-hexene which comprises trimerizing ethylene in a 1-hexene solvent in the presence of a catalyst system prepared by contacting in a 1-hexene solvent the following components (A), (B), (C) and (D):

(A) a chromium-containing compound represented by the general formula: CrX_kY_m

wherein X is a residue of a carboxylic acid, a residue of a 1,3-diketone, a halogen atom or an alkoxyl group, k is an integer of 2 to 4, Y in Y_m is an amine compound, a phosphine compound, a phosphine oxide compound, a nitrosyl group or an ether compound and m is an integer of 0 to 6, with the proviso that any two Y's may be same or different;

(B) trialkylaluminum or dialkylaluminum hydride;

(C) a pyrrole compound or a derivative thereof;

(D) a group 13 (III B)-halogen compound represented by the general formula: MTtU_{3-t} or a group 14 (IV B)-halogen compound represented by the general formula: $\text{M'Tt'U}_{4-t'}$ wherein M is an atom from the group 13 (III B), M' is an atom from the group 14 (IV B), T is an alkyl group, an aryl group, an allyl group or a hydrogen atom, U is a halogen atom, t is a real number of 0 or more and less than 3 and t' is a real number of 0 or more and less than 4.