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(54) Title: A PROCESS FOR DEHYDROCHLORINATING 1,1,1,2-TETRAFLUORO-2-CHLOROPROPANE TO 2,3,3,3-TETRAFLUOROPROPENE IN THE PRESENCE OF AN ALKALI METAL-DOPED MAGNESIUM OXYFLUORIDE CATALYST AND METHODS FOR MAKING THE CATALYST

(57) Abstract: A process for making a fluorinated olefin. The process has the step of dehydrochlorinating a hydrochlorofluorocarbon having at least one hydrogen atom and at least one chlorine atom on adjacent carbon atoms in the presence of a catalytically effective amount of a catalyst composition. The catalyst composition is represented by the following: n wt.% MX/M'O_yF_z, wherein 0 < y < 1 and 0 < z < 2 and wherein y + z/2 = 1; M is an alkali metal ion selected from the group consisting of Li⁺, Na⁺, K⁺, Rb⁺, and Cs⁺; X is a halogen ion selected from the group consisting of F⁻, Cl⁻, Br⁻, and I⁻; M' is a bivalent metal ion; wherein n is a weight percentage of about 0.05% to about 50% MX based on the total weight of the MX and M'O_yF_z, and wherein y and z are the mole fractions of oxygen and fluorine in M'O_yF_z, respectively. There are also methods for making catalyst compositions.



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PCT/US2009/045414**A. CLASSIFICATION OF SUBJECT MATTER***C07C 17/23(2006.01)i, C07C 21/18(2006.01)i, B01J 27/138(2006.01)i, B01J 23/04(2006.01)i*

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

C07C 17/23; C07C 17/00; C07C 17/25; C07C 17/35; C07C 21/18

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Korean utility models and applications for utility models since 1975.
Japanese utility models and applications for utility models since 1975.

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

eKOMPASS(KIPO internal)

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	EP 1916231 A2 (HONEYWELL INTERNATIONAL INC.) 30 April 2008 See the whole document	1-10
A	WO 2007-117391 A1 (E.I. DU PONT DE NEMOURS AND COMPANY et al.) 18 October 2007 See the whole document	1-10
A	US 2005-0090698 A1 (DANIEL MERKEL et al.) 28 April 2005 See the whole document	1-10
A	WO 2008-030440 A2 (E. I. DU PONT DE NEMOURS AND COMPANY et al.) 13 March 2008 See the whole document	1-10

 Further documents are listed in the continuation of Box C. See patent family annex.

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"&" document member of the same patent family

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