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(71) Applicant (for all designated States except US): **SHELL
INTERNATIONALE RESEARCH MAATSCHAPPIJ
B.V.** [NL/NL]; Carel van Bylandtlaan 30, NL-2596 HR
The Hague (NL).

(71) Applicant: **CHINA UNIVERSITY OF PETROLEUM**
[CN/CN]; Fuxue Road 18, Beijing 102249 (CN).

(71) Applicant (for US only): **SHELL OIL COMPANY**
[US/US]; PO Box 2463, One Shell Plaza, Houston, Texas
77252-2463 (US).

(72) Inventors: **ZHANG, Rui**; State Key Laboratory of Heavy
Oil Processing, China University of Petroleum, Fuxue
Road 18, Changping, Beijing 102249 (CN). **LIU,
Zhichang**; State Key Laboratory of Heavy Oil Processing,
China University of Petroleum, Fuxue Road 18, Chang-
ping, Beijing 102249 (CN). **XU, Chunming**; State Key
Laboratory of Heavy Oil Processing, China University of
Petroleum, Fuxue Road 18, Changping, Beijing 102249

(CN). **MENG, Xianghai**; State Key Laboratory of Heavy
Oil Processing, China University of Petroleum, Fuxue
Road 18, Changping, Beijing 102249 (CN). **KLUSENER,
Peter Anton August**; Grasweg 31, NL-1031 HW Amster-
dam (NL).

(74) Agent: **MATTHEZING, Robert Maarten**; PO Box 384,
NL-2501 CJ The Hague (NL).

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(54) Title: PROCESS FOR REGENERATION OF IONIC LIQUID CATALYST

(57) Abstract: The present invention relates to a regeneration process for producing a regenerated ionic liquid catalyst from solids formed in an ionic liquid alkylation process wherein a first ionic liquid is used as a catalyst which is a composite ionic liquid comprising ammonium cations, and anions being composite coordinate anions derived from two or more metal salts, wherein at least one metal salt is an aluminium salt and any further metal salt is a salt of a metal selected from the group consisting of Group IB elements of the Periodic Table, Group IIB elements of the Periodic Table and transition elements of the Periodic Table, the regeneration process comprising (a) removing the solids from the reaction zone of the alkylation process; and (b) subsequently treating the solids with a second ionic liquid made from an ammonium salt as cation, and an aluminium salt as anion which is the same as the aluminium salt present in the first ionic liquid. The process of the invention provides means to more efficiently run an ionic liquid alkylation process with less impact on the environment than processes known from the prior art.



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