C L A I M S

1. A method for revamping an HF or sulphuric acid alkylation unit to an ionic liquid alkylation unit, wherein the HF or sulphuric acid alkylation unit comprise at least:

- a reactor unit for contacting catalyst and hydrocarbon reactants;
- a separator unit for separating a reactor effluent into a catalyst phase and an alkylate-comprising hydrocarbon phase;
- a fractionator unit for fractionating the alkylate-comprising hydrocarbon phase into at least one stream comprising alkylate; and

which method includes:

- providing a second separator unit suitable for the separation of solids from liquids downstream of the reactor unit suitable to reduce the solids content in at least part of the reactor effluent.

2. A method according to claim 1, wherein catalyst phase recycle means are provided to recycle at least part of the catalyst phase from the catalyst phase outlet of the separator unit to the reactor unit and wherein the second separator is integrated in the catalyst recycle means.

3. A method according to any one of the preceding claims, wherein the second separator unit is a filtration, precipitation and/or centrifugation unit.

4. A method according to any one of the preceding claims, wherein the second separator comprises an outlet for a solids-comprising stream and means are provided to further treat a solids-comprising stream.

C L A I M S

1. A method for revamping an HF or sulphuric acid alkylation unit to an ionic liquid alkylation unit, wherein the HF or sulphuric acid alkylation unit comprise at least:

- a reactor unit for contacting catalyst and hydrocarbon reactants;

- a first separator unit for separating a reactor effluent into a catalyst phase and an alkylate-comprising hydrocarbon phase;

- a catalyst phase recycle means to recycle at least part of the catalyst phase from the catalyst phase outlet of the first separator unit to the reactor unit;

- a fractionator unit for fractionating the alkylate- comprising hydrocarbon phase into at least one stream comprising alkylate; and

which method includes:

- providing a second separator unit integrated in the catalyst recycle means suitable for the separation of solids from the catalyst phase downstream of the first separator unit suitable to reduce the solids content in at least part of the reactor effluent.

2. A method according to claim 1, wherein the second separator unit is a filtration, precipitation and/or centrifugation unit.

3. A method according to any one of the preceding claims, wherein the second separator comprises an outlet for a solids-comprising stream and means are provided to further treat a solids-comprising stream.

4. A revamped ionic liquid alkylation unit produced by the process of any one of claims 1 to 4.