

5502260**PROCESS FOR PREPARING MULTIPLY
FLUORINATED NITROBENZENES**

Schach Thomas; Papenfuhs Theodor Gernsheim,
GERMANY assigned to Hoechst Aktiengesellschaft

Multiply, preferably doubly or triply, fluorinated nitrobenzenes are prepared in an advantageous way from the corresponding chloronitrobenzenes and an alkali metal fluoride in a chlorine-fluorine exchange reaction by catalyzing the reaction with a quaternary ammonium compound comprising at least one alkoxyalkoxyalkyl radical.

5502591**OPTICAL AMPLIFIER WITH A DOPED
FLUORIDE GLASS OF OPTICAL FIBRE
AND PROCESS FOR PRODUCING SAID
AMPLIFIER**

Semenkoff Mathild; Ronarc 'H Daniel; Guibert Marcel
Perros Guirec, FRANCE assigned to France Telecom
Etablissement Autonome de Droit Public

Optical amplifier with a doped fluoride glass optical fibre and process for the production of said amplifier. In said amplifier, two monomode silica fibres, whereof at least one is doped with erbium, are coupled to two ends of an erbium-doped, fluoride glass monomode fibre and have the same optical mode diameter as the latter. Application to optical telecommunications.

5502969**CRYOGENIC RECTIFICATION SYSTEM
FOR FLUORINE COMPOUND
RECOVERY**

Jin Yijian; Fisher Theodore Tonawanda, NY,
UNITED STATES assigned to Praxair Technology Inc

A cryogenic system for the recovery of fluorine compounds from a carrier gas stream such as an effluent stream from a semiconductor facility comprising a mass transfer contacting device, such as a cryogenic wash column, integrated with a cryogenic rectification column system.

5503819**SUBSTITUTED FLUORIDE SMECTITE
CLAYS, PROCESS FOR PREPARING THE
CLAY AND USES THEREOF**

Holmgren Jennifer Bloomingdale, IL, UNITED
STATES assigned to UOP

Novel fluoride containing substituted smectite clays are disclosed as well as their preparation and uses. The clay has the formula (*See Patent for Tabular Presentation*) PS where A is a cation, M and M' are metals having a +3 oxidation state, each selected from the group consisting of aluminum, gallium, iron and chromium, x is the moles of A , y is the moles of M , t and v are the moles of M and M' in the tetrahedral layer and $t+v=x$ and u is the moles of F . The clay composition may be used as is or after pillaring to catalyze hydrocarbon conversion processes such as alkylation.

5503901**SURFACE TREATMENT METHOD AND
SURFACE TREATMENT APPARATUS**

Sakai Takayuki; Hayashi Hisataka; Okano Haruo;
Takagi Shigeyuki; Uchida Yutaka Chofu, JAPAN
assigned to Kabushiki Kaisha Toshiba

Etching selectivity is improved in a semiconductor process using a fluorocarbon gas. An energy incident to a substrate is controlled to have a value to cause transition from etching to deposition on a silicon nitride film, ions having $(CF_2)_n^+$ as a major component are guided onto the substrate to perform selective etching of a silicon oxide film against the silicon nitride film.