

## SUMMARIES OF UK PATENT APPLICATIONS

**Dispersible Hydrophilic Polymer Compositions.** GB 2070611A. Filed 21 January 1981, published 9 September 1981. Applicants – NL Industries Inc, New York, USA.

A composition consisting of hydroxyethyl cellulose and a polar organic solvent which is both miscible with water and a solvent for the cellulose derivative, is described. This can be added to heavy brines to produce well-servicing fluids.

**Method of Producing *O*-Trimethylsilyl Cellulose.** GB 2070612A. Filed 11 February 1981, published 9 September 1981. Applicants – Chemiefaser Lenzing, Lenzing, Austria.

Method of producing *O*-trimethylsilyl cellulose with a degree of substitution up to 2.0 is described.

**Method of Producing *O*-Trimethylsilyl Cellulose and Utilisation Thereof.** GB 2070613A. Filed 11 February 1981, published 9 September 1981. Applicants – Chemiefaser Lenzing, Lenzing, Austria.

**Porous Saccharide Granules.** GB 2071104. Filed 28 January 1981, published 16 September 1981. Applicants – House Food Industrial Company Ltd, Osaka-fu, Japan.

Granules consisting of a conglomeration of saccharides are useful as carriers for absorbed liquids, particularly oils. They can be used as ingredients in dry-mix foods. The granules may be produced by heating moist crystallisable particles at temperatures sufficient to produce partial crystallisation in and cohesion between the surface regions of adjacent particles. The examples mainly refer to granules prepared from monosaccharides and disaccharides, although the preparation of granules from polysaccharides is also claimed.

**A Process for the Purification of Glucosaminoglucans.** GB 2071127A. Filed 18 February 1981, published 16 September 1981. Applicants – Italfarmasco, s.p.a., Milan, Italy.

The separation of fractions from polydisperse preparations of glucosaminoglucans using ultrafiltration or reverse osmosis is described. The object of the separation procedure is to obtain fractions with high biological (in particular anti-coagulant) activity.

**Pollution-Free Cationisation of Starch.** GB2071128A. Filed 26 February 1981, published 16 September 1981. Applicants – National Starch and Chemical Corporation, New Jersey, USA.

Cationic starches which find particular use in the paper industry are prepared by spraying a starch with a water content of less than 30% with a catalyst reagent mixture of a halohydrin or an epoxide etherifying reagent and an alkali catalyst.

**Acetyl Derivatives of Cellulose.** GB2071667A. Filed 13 March 1981, published 23 September 1981. Applicants – Snia Viscosa Societa Nazionale Industrie Applicazioni Viscosa, Milan, Italy.

A novel process is described for preparing acetyl derivatives of cellulose. The product obtained may be easily isolated and can be used for making fibres and films.

**Process for the Preparation of Copolymers of Polysaccharides as Supports of Enzymatic Activity and Copolymers thus Obtained.** GB2071669A. Filed 13 February 1981, published 23 September 1981. Applicants – Italfarmasco, s.p.a., Milan, Italy.

A process for preparing a copolymer consisting of an enzyme and a polysaccharide is described. A vinyl monomer and the enzyme are added to an aqueous polysaccharide suspension and the mixture is irradiated with u.v. light in the presence of a metallic salt catalyst.

**Process for Recovering Starch Slurries and Gluten from Starch-Bearing Materials.** GB2072209A. Filed 25 March 1981, published 30 September 1981. Applicants – CPC International Inc., New Jersey, USA.

A process for wet milling is described in detail.

**Process of Preparing Pectin from Vegetable Tissue.** GB2072210A. Filed 8 August 1980, published 30 September 1981. Applicants – Takuo Sakai, Osaka, Japan.

A process by which pectin is liberated from plant tissue by microbial rather than chemical action is described. Yeasts belonging to the genera *Endomyces*, *Saccharomyces*, *Schizosaccharomyces*, *Pichia*, *Hansenula*, *Debaryomyces*, *Hanseniaspora*, *Tolupsis*, *Candida* or *Kluyveromyces* are claimed for this application.

**An Adhesive Containing Starch.** GB2072693A. Filed 20 March 1981, published 7 October 1981. Applicants – CPC International Inc., New Jersey, USA.

An adhesive which is particularly useful for making corrugated cardboard is described. Compared with conventional starch-based adhesives it has a greatly increased gelatinisation rate and thereby increases wet tack allowing greater machine rates in cardboard manufacture.

One method of preparation described consists of gelatinising starch by heating, preferably in the presence of an acid or a base, then adding more ungelatinised starch and adjusting the pH to between 8 and 13 and moistening the mixture until a certain viscosity is reached when the reaction is stopped by the addition of an inhibitor such as borax or alum.

**Method of Modifying Starch.** GB 2074596A. Filed 25 April 1980, published 4 November 1981. Applicants – CPC International Inc., New Jersey, USA.

Methods of producing modified starches by the use of U.H.F. radiation are described. The U.H.F. radiation is limited so the temperature does not rise above 100°C and the moisture content of the treated starch is greater than 10%. Etherification, esterification and oxidation can be accomplished by the use of a suitable reagent plus U.H.F. radiation.

**Viscosifer and Fluid Loss Control System.** GB 2074637A. Filed 28 April 1980, published 4 November 1981. Applicants – W. R. Grace & Co., New York, USA.

A drilling fluid consisting of an admixture of a hydroxy containing aluminium component and a cross-linked hydroxyalkyl cellulose reaction product is described.

**Composition and Method for Thickening Aqueous Brines.** GB 2075041A. Filed 30 March 1981, published 11 November 1981. Applicants – N. L. Industries Inc., New York, USA.

A polymeric composition useful for thickening aqueous brines comprising hydroxyethyl cellulose, a water soluble organic liquid, e.g. isopropanol, and an aqueous liquid is described. Particular use is as a thickener for well-servicing fluids.

**Extract and Process for Extraction from Plant of Genus *Epimedium* sp. Immunostimulating Agent Comprising said Extract, and Extract for use in Immunotherapy.** GB 2076002A. Filed 30 April 1981, published 25 November 1981. Applicants – Zenyaku Kogyo Kabushiki, Tokyo, Japan.

A high molecular weight saccharide-containing material is extracted from plant material belonging to the above genus. Uses in immunotherapy are claimed.

**Dispersible Xanthan Gum Composite.** GB 2076003A. Filed 7 May 1981, published 25 November 1981. Applicants – Merck & Co. Inc., New Jersey, USA.

If silica is added to xanthan gum beer prior to the normal isolation procedures it is

claimed that the gum obtained is more readily dispersible than xanthan gum from regular beer. The silica may be fuma silica, silica aerogel or silica xerogel.

**Hydrolysed Polysaccharide.** GB 2076418A. Filed 22 May 1980, published 2 December 1981. Applicants – Sankyo Company Ltd, Tokyo, Japan.

A glucan having  $\beta$ -(1 $\rightarrow$ 3) bonding on its principal chain, and  $\beta$ -(1 $\rightarrow$ 6) bonding in its branches is prepared by treating a polysaccharide by a fungus of the family Corticiaceae with formic acid and then hydrolysing the resulting product. Valuable immunomodulating properties are claimed for the hydrolysed glucan. Uses in treating cancers and articular rheumatism are mentioned.