

Summaries of UK Patent Applications

As Volume 2 No. 4 of *Carbohydrate Polymers* was a special issue devoted entirely to a conference proceedings, no patent summaries were included. The summaries in this issue follow on directly from those in Volume 2 No. 3.

Settable Alginate Compositions. GB 2090272A. Filed 23 September 1981, published 7 July 1982. Applicants – Laclede Professional Products Inc., New York, USA.

A two-component system which on mixing gives an oral, settable, dental composition is described. The two components consist of an alkali metal alginate in an aqueous paste and a divalent metal salt plus a sequestrant in a fluid plasticiser paste.

Stabilised Solutions of Modified Cellulose in Brine and their Use as Completion and Workover Fluids. GB 2090308A. Filed 14 October 1981, published 7 July 1982. Applicants – Mobil Oil Corporation, New York, USA.

Heat degradation of cellulose derivatives, e.g. hydroxyethyl cellulose, is reduced by including copper species in the aqueous brine. Brines containing substantial concentrations of chloride ions are most dramatically

stabilised. Degradation and hence viscosity reduction can still be achieved by acidification.

Aqueous Dispersion. GB 2090842A. Filed 12 January 1982, published 21 July 1982. Applicants – Daicel Chemical Industries Ltd, Osaka, Japan.

A cellulose derivative-containing aqueous dispersion is obtained by polymerising a mixture of a cellulose derivative, at least one radical-polymerisable unsaturated monomer capable of dissolving the cellulose derivative therein and water under radical polymerisation conditions.

Anti-Tumour Polysaccharide. GB 2090846A. Filed 20 November 1981, published 21 July 1982. Applicants – Meiji Milk Products Co. Ltd, Tokyo, Japan.

A high molecular weight polysaccharide produced by culturing bacteria of the genera *Lactobacillus* and *Streptococcus* is described. The polysaccharide has anti-tumour activity and gives high viscosity solutions.

A Continuous Process for the Production of Gelable Exopolysaccharide. GB 2090847A. Filed 8 January 1982, published 21 July 1982. Applicants – George Weston Ltd, Ontario, Canada.

A two stage continuous process for the production of a curdlan type polysaccharide is described.

The Production of Starch and Alcohol from Starch-Bearing Grains. GB 2091293A. Filed 21 January 1981, published 28 July 1982. Applicants – Zetmeelbedrijven 'De Bijenkorf' BV, Koog aan de Zaan, Holland.

A starch and alcohol production process is described wherein output from the steep of starch bearing grains, e.g. maize, is processed to separate relatively fine and coarse fractions. The former is treated to

recover starch whereas the latter is subjected to saccharification, fermentation and distillation in order to produce alcohol.

Open Cell, Foamed Cellulose Acetate Filters. GB 2091738A. Filed 13 March 1979, published 4 August 1982. Applicants – Cellanese Corporation, New York, USA.

A process for the manufacture of cigarette filters from cellulose acetate is described. The filter is produced by melt extruding a mixture of cellulose acetate, a plasticiser, a blowing agent which is preferably at least a partial solvent for cellulose acetate and a nucleating agent.

Contact Lens and Process for Preparing Same. GB 2091750A. Filed 12 January 1982, published 4 August 1982. Applicants – Toyo Contact Lens Co., Aichi-ken, Japan.

A copolymer containing methacrylate or acrylate units with saccharide side chains is described. The preferred saccharides are D-galactose, D-glucose and D-mannose. The material has good oxygen permeability and affinity for eye tissue and can be used to make a water absorptive contact lens.

Polyisocyanate Crosslinked Polymers Containing a Cellulosic Component. GB 2092605A. Filed 8 January 1982, published 18 August 1982. Applicants – Nippon Paint Co. Ltd, Osaka, Japan.

Cellulose derivatives such as cellulose nitrate, cellulose acetate, etc., may be crosslinked with a synthetic film-forming resin. The hybrid polymers can be used as a film-forming component in lacquer type coating compositions.

Immobilisation of Animal Cells. GB 2093040A. Filed 14 August 1981, published 25 August 1982. Applicants – Corning Glass Works, New York, USA.

Animal cells are immobilised in microcarriers that can be enzymatically degraded, e.g. gelatin and chitosan. The microcarriers can be modified with a crosslinking agent such as glutaraldehyde to increase temperature resistance and particles of a magnetic material may be included to permit the use of an external magnetic field to stir or suspend the system. Alternatively animal cells can be immobilised in alginate or agarose gels.

Process for Granulating Powder. GB 2093052A. Filed 15 December 1981, published 25 August 1982. Applicants – Dr Gerhard Gergely, Wien, Austria.

A process for producing a granulated powder without caking is described. A binding agent such as starch, carboxymethyl cellulose or guar gum, usually in a concentrated aqueous solution, is dispersed in an organic liquid in which it is insoluble. The dispersion is sprayed onto the powder to be granulated and then the liquid medium is evaporated off.

A Process for the Production of a Cationic Starch Derivative. GB 2094323A. Filed 5 February 1982, published 15 September 1982. Applicants – Degussa Aktiengesellschaft, Frankfurt, Germany.

A cationic starch derivative is prepared by reacting cooked starch with a quaternary ammonium salt containing epoxide groups. The alkaline starch paste (at a concentration of more than 15% by weight) with the derivitisation reagent added is transported in aqueous medium from the cooking zone into a reaction zone at a temperature above 100°C. Major use of cationic starches is in the paper industry.

Polysaccharide having Anticarcinogenic Activity and Method for Producing Same. GB 2094324A. Filed 1 March 1982, published 15 September 1982. Applicants – Takara Shuzo Co. Ltd, Kyoto, Japan.

A new β -1,3-glucan with claimed excellent anticarcinogenic activity is described. Methods for producing this material by fermentation processes are also described.

Process for Producing Fibrous Carboxymethyl Cellulose. GB 2094802A. Filed 18 March 1981, published 22 September 1982. Applicants – Kao Soap Co. Ltd, Tokyo, Japan.

Carboxymethyl cellulose fibres with an arbitrary uniform degree of substitution are produced from natural or regenerated cellulose fibres. In the process a homogeneous solution of the alkaline reaction mixture is brought into contact with the cellulose fibres in a vessel equipped with a pump circulating system.

Stoma Seal Adhesive. GB 2094809A. Filed 15 March 1982, published 22 September 1982. Applicants – Johnson and Johnson Products Inc., New Jersey, USA.

A pressure sensitive adhesive having the capacity to absorb 15–40% of its own weight in water is described. The adhesive contains a water absorbing component selected from a group including karaya gum, locust bean gum, pectin and carboxymethylcellulose.

Vaccines Containing Virus Saccharide Conjugates. GB 2095552A. Filed 9 February 1982, published 6 October 1982. Applicants – Kabushiki Kaisha, Okayama, Japan.

A virus vaccine prepared by covalently linking a virus to a polysaccharide is described. Pullulan, elsinan and their partial hydrolysates are the preferred polysaccharides because the covalent attachment between the virus and these saccharides causes a particularly marked enhancement of its capacity to produce immunoglobulin G and immunoglobulin M antibodies, and substantially diminishes the rate of production of immunoglobulin E antibody.