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Summaries of UK Patent Applications

Process for the Production of a Branching Enzyme. GB 2095681A. Filed 5 February 1982, published 6 October 1982. Applicants – Kabushiki Kaisha Hayashibara Seibutsu Kagaku Kenkyujo, Okayama, Japan.

A process for the production of a branching enzyme which is a transferase and acts on α-1,4 linkages in a polysaccharide, to branch the polysaccharide by forming α-1,6 linkages, is described. The enzyme is produced by cultivating in a nutrient medium a microorganism of the genus *Bacillus*. The main use of the enzyme is in food products containing starch where enzyme treatment prevents retrogradation. Examples given include its use in bread, soup and custard cream.

Process for the Production of Human Antibodies. GB 2096146A. Filed 5 February 1982, published 6 October 1982. Applicants – Kabushiki Kaisha Hayashibara Seibutsu Kagaku Kenkyujo, Okayama, Japan.

The production of human antibodies by the injection into a non-human warm-blooded animal of a conjugate of the human protein and a saccharide is described. It is claimed that the production of antibodies is much greater than when an unconjugated human protein is used and the formation of immunoglobulin E which causes an aphylactic shock is completely suppressed or partially diminished. Preferable methods of

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linking the protein and polysaccharide are the diazo, peptide, alkylation, cross-linking and disulphide methods. Examples include a human interferon–pullulan conjugate (see GB 2095552A).

Debranching Enzyme Product Preparation and Use Thereof. GB 2097405A. Filed 19 April 1982, published 3 November 1982. Applicants – Novo Industri A/S, Baysvaerd, Denmark.

A debranching enzyme of the pullulanase type produced by cultivating a strain belonging to the novel taxonomic group, *Bacillus acidopullulyticus*, is described. The enzyme has uses in the enzyme–enzyme hydrolysis of starch to produce a dextrose syrup. It has the advantage of comparable thermostability and pH optimum to glucoamylase.

High Temperature Stable Viscosifier and Fluid Loss Control Systems. GB 2097447A. Filed 8 April 1982, published 3 November 1982. Applicants – W. R. Grace & Co., New York, USA.

A high temperature stable composition capable of imparting a combination of pseudoplasticity and fluid loss control properties to aqueous systems is a combination of (i) hydroxyalkyl cellulose or polyvinyl alcohol reacted with a cross-linking agent selected from an epihalohydrin or an aldehyde containing or generating agent, (ii) a chemical compound capable of converting to a higher oxidation state under alkaline conditions and (iii) a hydroxy-containing aluminium compound.

High Temperature Stable-Fluid Loss Control System. GB 2097448A. Filed 8 April 1982, published 3 November 1982. Applicants – W. R. Grace & Co., New York, USA.

A composition containing a combination of (i) hydroxyalkyl cellulose or polyvinyl alcohol, (ii) a chemical compound capable of converting to a higher oxidation state under alkaline conditions and (iii) a solid particulate silicate or alumino-silicate material is described (see GB 2097447A).