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(54) Title: HIGH TITER PRODUCTION OF POLY (α 1, 3 GLUCAN)

(57) Abstract: A process for enzymatic preparation of poly (α 1, 3 glucan) from sucrose is disclosed. The glucosyltransferase enzyme (gtfJ) from *Streptococcus salivarius* is used to convert sucrose to fructose and poly (α 1, 3 glucan). Application of semi-permeable membranes to continuously remove fructose, a by-product of the gtf enzyme, thus increasing the poly (α 1, 3 glucan) liter, is disclosed.