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(21) International Application Number: PCT/NL99/00272 (22) International Filing Date: 4 May 1999 (04.05.99) (30) Priority Data: 98201495.3 7 May 1998 (07.05.98) EP (71) Applicant (for all designated States except US): NEDERLANDSE ORGANISATIE VOOR TOEGEPAST NATUURWETENSCHAPPELIJK ONDERZOEK TNO [NL/NL]; Schoemakerstraat 97, P.O. Box 6080, NL-2600 JA Delft (NL). (72) Inventors; and (75) Inventors/Applicants (for US only): VAN DER LUGT, Jan, Pieter [NL/NL]; Schone van Boskoopgaarde 15, NL-3824 AA Amersfoort (NL). JETTEN, Jan, Matthijs [NL/NL]; Costerlaan 3B, NL-3701 JL Zeist (NL). BESEMER, Arie, Cornelis [NL/NL]; Burg. H. v.d. Boschstraat 111, NL-3958 CC Amerongen (NL). VAN DOREN, Hendrik, Arend [NL/NL]; Schrijnwerkerlaan 15, NL-3828 XB Hoogland (NL). (74) Agent: DE BRUIJN, Leendert, C.; Nederlandsch Octrooibureau, Scheveningseweg 82, P.O. Box 29720, NL-2502 LS The Hague (NL).		(81) Designated States: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZA, ZW, ARIPO patent (GH, GM, KE, LS, MW, SD, SL, SZ, UG, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG). Published <i>With international search report.</i>
(54) Title: PROCESS FOR SELECTIVE OXIDATION OF PRIMARY ALCOHOLS (57) Abstract Primary alcohols, especially in carbohydrates, can be selectively oxidised to aldehydes and carboxylic acids in a low-halogen process by using a peracid in the presence of a catalytic amount of a di-tertiary-alkyl nitroxyl (TEMPO) and a catalytic amount of halide. The halide is preferably bromide and the process can be carried out at nearly neutral to moderately alkaline pH (5-11). The peracid can be produced or regenerated by means of hydrogen peroxide or oxygen. The process is advantageous for producing uronic acids and for introducing aldehyde groups which are suitable for crosslinking and derivatisation.		