



INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(51) International Patent Classification ⁶ : C22C 13/00, B23K 35/26, H05K 3/34	A1	(11) International Publication Number: WO 98/32886 (43) International Publication Date: 30 July 1998 (30.07.98)
(21) International Application Number: PCT/GB98/00254 (22) International Filing Date: 28 January 1998 (28.01.98) (30) Priority Data: 9701819.6 29 January 1997 (29.01.97) GB (71) Applicant (for all designated States except US): ALPHA FRY LIMITED [GB/GB]; Tandem House, Marlowe Way, Croydon CR0 4XS (GB). (72) Inventors; and (75) Inventors/Applicants (for US only): OULD, Martinus, Adrianus [NL/NL]; Oesterzwam 6, NL-2925 DK Krimpen a/d IJssel (NL). BILHAM, Roger [GB/GB]; 21 Highfield Road, Bickley, Bromley, Kent BR1 2JN (GB). (74) Agent: BOULT WADE TENNANT; 27 Furnival Street, London EC4A 1PQ (GB).		(81) Designated States: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, GM, GW, HU, ID, IL, 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, ZW, ARIPO patent (GH, GM, KE, LS, MW, SD, SZ, UG, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG). Published <i>With international search report.</i>
(54) Title: LEAD-FREE TIN ALLOY (57) Abstract A lead-free tin alloy for solder joints comprising up to 0.25 % by weight of indium and a grain refiner which is an alloy consisting of, by weight, 2.5 to 10 % aluminium, 1 to 5 % magnesium and balance zinc. The alloys have improved mechanical properties, such as creep strength, and an improved thermal fatigue strength.		