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(21) International Application Number: PCT/US98/21114 (22) International Filing Date: 7 October 1998 (07.10.98) (30) Priority Data: 08/951,264 16 October 1997 (16.10.97) US (71) Applicant: MEMC ELECTRONIC MATERIALS, INC. [US/US]; 501 Pearl Drive, P.O. Box 8, St. Peters, MO 63376 (US). (72) Inventor: HOLDER, John, D.; 73 Schooner Lane, Lake St. Louis, MO 63367 (US). (74) Agents: HEJLEK, Edward, J. et al.; Senniger, Powers, Leavitt & Roedel, 16th floor, One Metropolitan Square, St. Louis, MO 63102 (US).		(81) Designated States: CN, JP, KR, SG, European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE). Published With international search report. With amended claims.
(54) Title: PROCESS FOR PREPARING A SILICON MELT FROM A POLYSILICON CHARGE		
(57) Abstract A process for preparing a silicon melt from a polysilicon charge, for use in the production of single crystal silicon ingots by the Czochralski method, in a crucible which has a bottom, a sidewall formation, a centerline which is substantially parallel to the sidewall formation and which intersects a geometric centerpoint of the bottom, and a radius extending from the centerline to the sidewall formation. In the process, the crucible is loaded with chunk polysilicon to form a charge having a bowl-like shape, wherein initially the load generally slopes radially upwardly and outwardly from the centerline toward the sidewall formation to an apex and then slopes generally downwardly and outwardly from the apex to the sidewall formation. The bowl-shaped chunk polysilicon charge is heated to form a partially melted charge, and granular polysilicon is fed onto the partially melted charge to form a mixed charge of chunk and granular polysilicon. As the mixed charge is further heated to form a silicon melt, the unmelted chunk polysilicon present above the melt surface acts to deflect any molten silicon that may be splattered as granular polysilicon rapidly melts and hydrogen is released.		