1. Introduction

Fk`fkbo^qflk obpfarb %fk`fkbo^qflk ^pe ^ka «v ^pe& dbkbo^qba col j t^pqb qob^q j bkq c^`fifqfbp fp j ^fkiv pr_* gb`qba ql j biqfkd qob^q j bkq qe^q `^k pf j riq^kblrpiv ^`efbsb qeb qofmib mromlpbp lc slir j b obar`qflk) abqluf* ª`^qflk) ^ka obplro`b ob`v`ifkd+ GCB Bkdfkbbofkd kb t iv bpq^_ifpeba qeolrde _rpfkbpp `lkplifa^qflk lc qeb bkdf* kbbofkd afsfpflkp lc KHH ^ka H^t^p^hf Pqbbi e^p q t l afpqfk`qfsb qvmbp lc ^pe j biqfkd crok^`b qb`eklildv8 f+b+) bib`qof`*obpfpq^k`b qvmb ^ka mi^p j ^ qvmb+

2. Features of Each Type of Ash Melting Furnace

2.1 Electric-Resistance Ash Melting Furnace-&

Qeb pqor`qrob lc qefp qvmb lc crok^`b fp pel t k fk **Fig. 1**+ Qefp qeobb*me^pb ^iqbok^qfkd `roobkq bib`qof`* obpfpq^k`b ^pe j biqfkd crok^`b rpbp `^o_lk bib`qolabp ^ka mboclo j p qeb obar`qflk j biqfkd qob^q j bkq lc ^pe fk ^ criiv `ilpba pqor`qrob+ J liqbk pi^d ^ka j liqbk j bq^i ^ob pbm^o^qba _v qeb afccbobk`b fk pmb`fª` do^sfqv ^ka b^`e e^p ^ pbm^o^qb afp`e^odb mloq+ J liqbk pi^d fp afp`e^odba rqfifwfkd qeb eb^a mobpprob+ >p ^ t elib) qefp fp ^ rkfnrb j biqfkd pvpqb j b j milvfkd s^oflrp kb t qb`eklildfbp absbilmba _v GCB Bkdfkbbofkd+ Fqp j ^fk cb^qrobp ^ob ^p cliil t p7

%.& Qeb obar`fkd ^q j lpmebob prmmobppbp qeb dbkbo^qflk lc E@i ^ka KLu) bif j fk^qfkd qeb kbba clo pi^hba if j b fkgb`qflk ^ka `^q^ivqf` abkfqofª`^qflk qob^q j bkqp lc lcc*d^p+

%/& Eb^sv j bq^ip qe^q e^sb il t _lfifkd mlfkqp ^ob b^pfiv pbm^o^qba col j pi^d _v obar`fkd sli^qfifw^qflk) ^ka do^sfqv*pbm^o^qba pi^d fp fkabmbkabkqiv afp`e^odba col j ^ abaf`^qba pi^d afp`e^odb mloq fkpq^iiba ^q ^ j fa*mlfkq fk qeb crok^`b t ^ii) j ^hfkd fq mlppf_ib ql l_q^fk efde*nr^ifqv pi^d cobb lc eb^sv j bq^ip+

%0& O^af^qflk eb^q ilpp fp p j ^ii _b`^rpb qeb j biq fp `ls* boba t fqe ^pe) ^ka eb^q ilpp qeolrde lcc*d^p fp p j ^ii _b`^rpb lc fqp il t qb j mbo^qrob ^ka p j ^ii slir j b) j ^hfkd qeb lsbo^ii qebo j ^i bcª`fbk`v buqob j biv efde+

%1& >p qeb j biqfkd mol`bpp moldobppbp dbkqiv ^ka qeb lcc*d^p slir j b fp p j ^ii) qeb slir j b lc ^pe bkqo^fkba fk qeb lcc*d^p fp p j ^ii ^ka qeb wfk` `lk`bkqo^qflk fk j liqbk «v ^pe fp efde) `ob^qfkd ^as^kq^dblrp `lkaf* qflkp clo obplro`b ob`v`ifkd+

%2& >p qeb bkqfob slir j b lc pi^d proolrkaba _v qeb bib`* qolabp fp eb^qba _v Glrib eb^q) ^ i^odb slir j b lc pi^d fp eb^qba) t ef`e ^iil t p qeb crok^`b ql _b fk`ob^pba fk p`^ib+

2.2 Plasma Ash Melting Furnace/&

Qeb pqor`qrob fp pel t k fk **Fig. 2**+ Fq fp ^ipl ^ rkfnrb j biqfkd pvpqb j qe^q b j milvp s^oflrp kb t qb`eklil* dfbp absbilmba _v GCB Bkdfkbbofkd pr`e ^p ^ qo^kpcbo* qvmb mi^p j ^ qlo`e) do^sfqv pbm^o^qflk lc j liqbk pi^d ^ka j liqbk j bq^i) `lkqfkrlrp t^qbo do^kri^qflk lc j liqbk pi^d ^ka j liqbk j bq^i) qfiqfkd j bq^i afp`e^odb) ^ka KLu obar`qflk _v ^aafkd `lhb+ Fqp j ^fk cb^qrobp ^ob ^p cli* il t p7

%.& Il t flkfw^qflk mi^p j ^ t fqe ^k flkfw^qflk ibsbi lc ^_lrq ." fp b j milvba) j ^hfkd ^ efde qb j mbo^qrob b^pfiv l_q^fk^_ib+

%/& Qeb j ^qbof^i `e^odba fkql qeb crok^`b fp j biqba _v qeb efde qb j mbo^qrob dbkbo^qba _v qeb o^af^qflk

crok^`b+ Eb^sv j bq^ip qe^q e^sb il t _lfifkd mlfkqp ^ob b^pfiv pbm^o^qba col j pi^d _v sli^qfifw^qflk+ Civ ^pe dbkbo^qba col j ^ pqlhbo crok^`b dbkbo^iiv e^p efde `lk`bkqo^qflkp lc p^iqp ^ka eb^sv j bq^ip+ Qefp j bqela `^k j biq qefp qvmb lc «v ^pe t fqelrq ^aafkd ^kv lqebo j ^qbof^i+

%0& Qeb pi^d* j bq^i i^vbo pbm^o^qflk c^`fifq^qbp obplro`b ob`v`ifkd+

%1& Qeb bib`qolabp j ^ab lc j bq^i %`lmmbo& e^sb ^k buqob j biv ilkd ifcb ^ka ^iil t ^ pq^_ k`bkqoh- A h- - - - ! - - - ! buqob/eq" q¾ l' b +