H05 ELECTRIC TECHNIQUES NOT OTHERWISE PROVIDED FOR

H05H PLASMA TECHNIQUE (fusion reactors G21B; ion-beam tubes H01J 27/00; magnetohydrodynamic generators H02K 44/08; producing X-rays involving plasma generation H05G 2/00); PRODUCTION OF ACCELERATED ELECTRICALLY-CHARGED PARTICLES OR OF NEUTRONS (obtaining neutrons from radioactive sources G21, e.g. G21B, G21C, G21G); PRODUCTION OR ACCELERATION OF NEUTRAL MOLECULAR OR ATOMIC BEAMS (atomic clocks G04F 5/14; devices using stimulated emission H01S; frequency regulation by comparison with a reference frequency determined by energy levels of molecules, atoms, or subatomic particles H03L 7/26)

1/00 Generating plasma; Handling plasma
1/0006 . . . [Investigating plasma, e.g. degree of ionisation (electron temperature)]
1/0012 . . . [by using radiation]
1/0018 . . . [Details]
1/0025 . . . [by using photoelectric means (H05H 1/0031 - H05H 1/0043 take precedence)]
1/0031 . . . [by interferometry]
1/0037 . . . [by spectrometry (see G01N 3/00)]
1/0043 . . . [by using infra-red or ultra-violet radiation]
1/005 . . . [by using X-rays or alpha rays (see G01N 23/00)]
1/0056 . . . [by using neutrons (see G01N 23/00)]
1/0062 . . . [by using microwaves (see G01N 23/223)]
1/0068 . . . [by thermal means (see G01N 25/00)]
1/0075 . . . [Langmuir probes]
1/0081 . . . [by electric means (see G01N 27/00, G01R)]
1/0087 . . . [by magnetic means (see G01N 27/00, G01R)]
1/0093 . . . [by acoustic, e.g. ultrasonic means (see G01N 29/00)]
1/02 . . . Arrangements for confining plasma by electric or magnetic fields; Arrangements for heating plasma ([G21B 100 takes precedence]; electron optics H01J)
1/03 . . . [using electrostatic fields]
1/04 . . . [using magnetic fields substantially generated by the discharge in the plasma]
1/06 . . . [Longitudinal pinch devices]
1/08 . . . [Theta pinch devices, e.g. SCYLLA]
1/10 . . . [using externally-applied magnetic fields only, e.g. Q-machines, Yin-Yang, base-ball]
1/105 . . . [using magnetic pumping]
1/11 . . . [using cusp configuration (H05H 1/14 takes precedence)]
1/12 . . . [wherein the containment vessel forms a closed or nearly closed loop ([G21B 1/05 takes precedence])]
1/14 . . . [wherein the containment vessel is straight and has magnetic mirrors]
1/16 . . . [using externally-applied electric and magnetic fields]
1/18 . . . [wherein the fields oscillate at very high frequency, e.g. in the microwave range, e.g. using cyclotron resonance]
1/20 . . . [Ohmic heating]
1/22 . . . [for injection heating ([G21B 1/15 takes precedence])]
1/24 . . . [Generating plasma ([gas-filled discharge reactors H01J 37/32; nuclear fusion reactors G21B 1/00; ohmic heating H05H 1/20; injection heating H05H 1/22])]
2001/2406 . . . [Dielectric barrier discharges]
2001/2412 . . . [the dielectric being interposed between the electrodes]
2001/2418 . . . [the electrodes being embedded in the dielectric]
2001/2425 . . . [the electrodes being flush with the dielectric]
2001/2431 . . . [Cylindrical electrodes]
2001/2437 . . . [Multi-layer systems]
2001/2443 . . . [Flow through, i.e. the plasma fluid flowing in a dielectric tube]
2001/245 . . . [Internal electrodes]
2001/2456 . . . [External electrodes]
2001/2462 . . . [Ring electrodes]
2001/2468 . . . [Spiral electrodes]
1/2475 . . . [Acoustic pressure discharge]
2001/2481 . . . [Piezoelectric actuators]
2001/2487 . . . [Mechanical actuators]
2001/2493 . . . [Horns]
1/26 . . . Plasma torches ([metal working with constricted arc B23K 10/00; B23K 10/02; metal spraying B05B 7/18; B05B 7/20])
1/28 . . . [Cooling arrangements]
1/30 . . . [using applied electromagnetic fields, e.g. high frequency or microwave energy ([H05H 1/28 takes precedence])]
1/32 . . . [using an arc ([H05H 1/28 takes precedence])]
1/34 . . . [Details, e.g. electrodes, nozzles ([cf. B23K 9/24])]
frequency or microwave energy (H05H 1/26)
using applied electromagnetic fields, e.g. high
dielectric barrier discharge (H05H 1/2406
{Antennas or applicators}
Waveguides
{Discharge parameter control}
Circuit arrangements (H05H 1/38,
H05H 1/40 take precedence)
Guiding or centering of electrodes
using applied magnetic fields, e.g.
for focusing or rotating the arc}
(cf. B23K 9/08, B23K 9/073)
{With provisions for introducing materials into
the plasma, e.g. powder, liquid (electrostatic
spraying, spraying apparatus with means for
charging the spray electrically B05B 5/00
{cf. B23K 9/324, B05B 7/22; arc stabilising
or constricting arrangements H05H 1/3405;
coaxial protecting fluid H05H 1/3431)}
using more than one torch
using applied electromagnetic fields, e.g. high
frequency or microwave energy (H05H 1/26 takes precedence)
{Microwave discharges}
{Surface waves}
{Waveguides}
{Antennas or applicators}
{Cables}
{Radiofrequency discharges}
{Inductively coupled}
{Electrodes}
{Coiled antennas}
{Capacitively coupled}
{Associated power generators, e.g. G. Circuits,
matching networks}
{Flow through, i.e. the plasma fluid flowing in
a non-dielectric vessel}
{Dielectric barrier discharge (H05H 1/2406
takes precedence)}
{Arc discharge}
{Pulser generators}
Multistage accelerators
{Tandems}
{Onion-like structures}
Particle accelerators using step-up transformers, e.g.
resonance transformers
{Targets for producing nuclear reactions
supports for targets or objects to be irradiated G21K 5/08
preparation of tritium C01B 4/00; targets, e.g. pellets
for fusion reactions by laser or charged particles beam
preparation of tritium C01B 4/00
{Windows}
{Radiation protection arrangements, e.g. screens}
{Details of devices of the types covered by groups
H05H 9/00, H05H 11/00, H05H 13/00
{Arrangements for beam delivery or irradiation
( irradiation systems per se G21K 5/00 )}
{for modifying beam trajectory, e.g. gantries}
{for modifying beam energy, e.g. spread out Bragg peak devices}
{for modifying beam emittance, e.g. stochastic
cooling devices, stripper foils}
{for focusing the beam to irradiation target}
13/04 . Synchrotrons
13/06 . Air-cooled magnetic resonance accelerators
13/08 . Alternating-gradient magnetic resonance accelerators
13/085 . [Fixed-field alternating gradient accelerators [FFAG]]
13/10 . Accelerators comprising one or more linear accelerating sections and bending magnets or the like to return the charged particles in a trajectory parallel to the first accelerating section, e.g. microtrons

15/00 Methods or devices for acceleration of charged particles not otherwise provided for

2240/00 Test
2240/00 . at atmospheric pressure
2240/20 . Non-thermal plasma

2242/00 Auxiliary systems
2242/10 . Cooling arrangements
2242/1005 . Power supply other than for plasma torches

2245/00 test
2245/104 . spiral electrodes
2245/12 . Applications
2245/121 . treatment of exhaust gas, e.g. Ambient air, ozonizers
2245/1215 . . Exhaust gas
2245/122 . . medical applications {, e.g. plasma scalpels, blades, bistouri}
2245/1225 . . Sterilization of objects
2245/123 . . surface treatments
2245/1235 . . coating of large volume items
2245/124 . . production of nanostructures
2245/125 . . portable devices

2277/00 Applications
2277/10 . Medical devices
2277/11 . Radiotherapy
2277/113 . . Diagnostic systems
2277/116 . . Isotope production
2277/12 . . Ion implantation
2277/13 . . High energy applications, e.g. fusion
2277/14 . . Portable devices
2277/1405 . . Detection systems

9/00 Linear accelerators
9/005 . (Dielectric wall accelerators)
9/02 . Travelling-wave linear accelerators {(travelling-wave tubes H01J 25/34)}
9/04 . Standing-wave linear accelerators
9/041 . . (Hadron LINACS)
9/042 . . (Drift tube LINACS)
9/044 . . (Coupling cavity LINACS, e.g. side coupled)
9/045 . . (Radio frequency quadrupoles)
9/047 . . (Hybrid systems)
9/048 . . (Lepton LINACS)

11/00 Magnetic induction accelerators, e.g. betatrons
11/02 . Air-cooled betatrons
11/04 . Biased betatrons

13/00 Magnetic resonance accelerators; Cyclotrons
{Strophenrons, turbine tubes H01J 25/62}
13/005 . (Cyclotrons)
13/02 . Synchro-cyclotrons, i.e. frequency modulated cyclotrons