Title (en)

ELECTROMAGNETIC EXPOSURE CHAMBER FOR IMPROVED HEATING

Title (de)

ELEKTROMAGNETISCHE STRAHLUNG EXPOSITIONSKAMMER FÜR VERBESSERTE HEIZUNG

Title (fr)

CHAMBRE ASSURANT UNE EXPOSITION ELECTROMAGNETIQUE A CHAUFFAGE AMELIORE

Publication

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Application

EP 98963029 A 19981216

Priority

US 9826215 W 19981216

Abstract (en)

[origin: WO0036879A1] The present invention utilizes dielectric slabs to provide a relatively uniform electromagnetic field to a cavity between two or more dielectric slabs. Each dielectric slab is a thickness equal to or nearly equal to a quarter of a wavelength of the electromagnetic field in the dielectric slab. In a particular embodiment, sample material is introduced into the cavity between the two dielectric slabs. This sample material may be introduced through one or more openings in the dielectric slabs. In further embodiments, specialized choke flanges prevent the leakage of energy from this cavity. In a preferred embodiment, an elliptical conducting surface directs the electromagnetic field to a focal region between the two dielectric slabs. Openings to this focal region allow sample material to be passed through this region of focused heating.

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H05B 6/78; H05B 6/70

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CPC (source: EP)

H05B 6/701 (2013.01); **H05B 6/705** (2013.01)

Citation (examination)

- US 2543053 A 19510227 - PARKER LOUIS W
- US 3843861 A 19741022 - VAN AMSTERDAM C
- US 4999469 A 19910312 - DUDLEY KENNETH W [US], et al

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