

Title (en)  
HIGH-FREQUENCY HEATING DEVICE

Title (de)  
HOCHFREQUENZ-ERWÄRMUNGSVORRICHTUNG

Title (fr)  
DISPOSITIF CHAUFFANT À HAUTE FRÉQUENCE

Publication  
**EP 3503681 B1 20200513 (EN)**

Application  
**EP 17843288 A 20170724**

Priority  
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• JP 2017026620 W 20170724

Abstract (en)  
[origin: EP3503681A1] A high-frequency heating device (1a) includes a generation unit (8), a surface wave exciter (10), a first connecting unit (12), and a reuse unit (14). The generation unit (8) generates microwaves. The surface wave exciter (10) includes a periodic structure and heats a heating subject (6) by propagating the microwaves in a surface wave mode. The first connecting unit (12) is disposed at one end portion (15) of the surface wave exciter (10). The microwaves generated by the generation unit (8) are supplied to the surface wave exciter (10) through the first connecting unit (12). The reuse unit (14) reuses, for heating the heating subject (6), the microwaves that have reached another end portion (17) of the surface wave exciter (10) located in the propagation direction of the microwaves from one end portion (15) of the surface wave exciter (10). According to the present aspect, microwaves that have not been absorbed by the heating subject can be reused for heating the heating subject.

IPC 8 full level  
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