

Title (en)
PULSE ELECTROTHERMAL AND HEAT-STORAGE ICE DETACHMENT APPARATUS AND METHODS

Title (de)
AUF IMPULSBASIS ARBEITENDE, ELEKTROTHERMISCHE UND WÄRMESPEICHERNDE EISABTRENNUNGSVORRICHTUNG UND VERFAHREN DAFÜR

Title (fr)
PROCEDES ET APPAREIL DE DETACHEMENT DE GLACE D'UN STOCKAGE THERMIQUE ET PAR IMPULSION ELECTROTHERMIQUE

Publication
EP 1842015 A2 20071010 (EN)

Application
EP 06719229 A 20060124

Priority

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Abstract (en)
[origin: WO2006081180A2] Systems and methods for pulse electrothermal and heat-storage ice detachment. A pulse electrothermal ice detachment apparatus includes one or more coolant tubes, and optionally, fins in thermal contact with the coolant tubes. The tubes and/or fins form a resistive heater. One or more switches may apply electrical power to the resistive heater, generating heat to detach ice from the tubes and/or the fins. A freezer unit forms a heat-storage icemaking system having a compressor and a condenser for dissipating waste heat, and coolant that circulates through the compressor, the condenser and a coolant tube. The coolant tube is in thermal contact with an evaporator plate. A tank, after the compressor and before the condenser, transfers heat from the coolant to a heating liquid. The heating liquid periodically flows through a heating tube in thermal contact with the evaporator plate, detaching ice from the evaporator plate.

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