

Title (en)
PULSE ELECTROTHERMAL DEICING OF COMPLEX SHAPES

Title (de)
ENTEISUNG KOMPLEXER FORMEN DURCH ELEKTROTHERMALE IMPULSE

Title (fr)
DÉGIVRAGE ÉLECTROTHERMIQUE PAR IMPULSIONS DE FORMES COMPLEXES

Publication
EP 2032916 A2 20090311 (EN)

Application
EP 07868287 A 20070522

Priority

- US 2007069478 W 20070522
- US 80240706 P 20060522

Abstract (en)
[origin: WO2008060696A2] A pulse electrothermal deicing apparatus comprises at least one complex shape characterized by a thickness profile configured to generate uniform power per unit area to melt an interfacial layer of ice. A method of optimizing thicknesses of complex shapes for a pulse electrothermal deicing system includes assigning initial estimates of the pulse electrothermal deicing system parameters. A temperature distribution, a temperature range and a refreezing time produced by a deicing pulse are modeled. Shape thicknesses are adjusted according to the temperature range, deicing pulse parameters are adjusted according to the deicing pulse, and the modeling and adjusting is repeated until the temperature range and the refreezing time are within predetermined limits.

IPC 8 full level
F25C 5/08 (2006.01); **F25D 21/08** (2006.01)

CPC (source: EP KR US)
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Citation (search report)
See references of WO 2008060696A2

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WO 2008060696 A2 20080522; **WO 2008060696 A3 20080912**; CA 2653021 A1 20080522; CN 101484763 A 20090715; EP 2032916 A2 20090311; KR 20090024171 A 20090306; US 2010059503 A1 20100311

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