

Title (en)  
THERMAL SUPERCONDUCTOR REFRIGERATION SYSTEM

Title (de)  
KÜHLSYSTEM MIT WÄRMESUPRALEITER

Title (fr)  
SYSTEME DE REFRIGERATION A SUPRACONDUCTEURS THERMIQUES

Publication  
**EP 1974170 A1 20081001 (EN)**

Application  
**EP 07701636 A 20070103**

Priority

- CA 2007000005 W 20070103
- CA 2530621 A 20060103

Abstract (en)  
[origin: WO2007076602A1] A superconductor refrigeration system incorporates thermal superconducting elements accommodating heat transfer. The system includes an intensifying heat exchanging subsystem having a compressor (24) and two heat exchangers, (21,28) serially connected into a reversible refrigerating loop, a refrigerating heat exchange coil (55) formed from a thermal superconductor material and being in thermal communication with one heat exchanger, and a dissipating heat exchange coil (55a, 88) formed from a thermal superconductor material and thermally connected with the second heat exchanger. The refrigerating heat exchange coil (55) and the dissipating heat exchange coil (55a, 88) are connected to the respective heat exchangers (21, 28) by an evaporator heat exchange segment (34) and a condenser heat exchange segment (32) respectively. The system also includes a switch (36, 64, 64a, 64b, 64c ) which allows to alternatively connect the heat exchange coils with either one of the heat exchangers (21, 28 ) in order to change the mode of operation of the system from a refrigerating to defrosting.

IPC 8 full level  
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**F25B 47/025** (2013.01 - EP US); **F25D 21/06** (2013.01 - EP US); **F28F 13/00** (2013.01 - EP US); **F25B 25/005** (2013.01 - EP US); **F25B 2700/11** (2013.01 - EP US); **F28F 2013/001** (2013.01 - EP); **F28F 2013/008** (2013.01 - EP)

Citation (search report)  
See references of WO 2007076602A1

Cited by  
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