

Title (en)
Production of heat transfer element

Title (de)
Herstellung eines Wärmeübertragungselements

Title (fr)
Fabrication d'un élément de transfert de chaleur

Publication
EP 0612858 B1 19990609 (EN)

Application
EP 94301175 A 19940218

Priority
GB 9303655 A 19930223

Abstract (en)
[origin: EP0612858A2] A heat transfer element (2) for use in boiling a liquid is produced by spraying a substrate, such as a heat exchanger tube, with a plasma of liquified metal particles and concurrently spraying the substrate with liquid carbon dioxide to provide a cooling effect. Preferably the metal particle spray (4) and the carbon dioxide spray (8) are spaced apart, and there is relative movement between the sprays and the substrate, such that a given area of the substrate is precooled by the cold carbon dioxide just prior to liquified metal particles impinging thereon. A shroud (6) may assist in directing the liquid carbon dioxide first onto the substrate, then into the spray of liquified metal particles. <IMAGE>

IPC 1-7
C23C 4/12; C23C 4/08; F28F 13/18

IPC 8 full level
C23C 4/12 (2006.01); **F28F 13/18** (2006.01)

CPC (source: EP)
C23C 4/12 (2013.01); **F28F 13/187** (2013.01)

Cited by
US6303191B1; WO9833031A1

Designated contracting state (EPC)
DE FR GB

DOCDB simple family (publication)
EP 0612858 A2 19940831; **EP 0612858 A3 19950419**; **EP 0612858 B1 19990609**; DE 612858 T1 19950420; DE 69418915 D1 19990715; DE 69418915 T2 20000127; GB 9303655 D0 19930407

DOCDB simple family (application)
EP 94301175 A 19940218; DE 69418915 T 19940218; DE 94301175 T 19940218; GB 9303655 A 19930223