

Title (en)
MULTIPLE ZONE HEATER

Title (de)
MEHRZONEN-HEIZER

Title (fr)
DISPOSITIF DE CHAUFFAGE MULTIZONES

Publication
EP 2973659 A4 20161109 (EN)

Application
EP 14764068 A 20140314

Priority
• US 201313831670 A 20130315
• US 2014028937 W 20140314

Abstract (en)
[origin: TW201506989A] A multi-zone heater with a plurality of thermocouples such that different heater zones can be monitored for temperature independently. The independent thermocouples may have their leads routed out from the shaft of the heater in a channel that is closed with a joining process that results in hermetic seal adapted to withstand both the interior atmosphere of the shaft and the process chemicals in the process chamber. The thermocouple and its leads may be enclosed with a joining process in which a channel cover is brazed to the heater plate with aluminum.

IPC 8 full level
H01L 21/67 (2006.01); **H01L 21/687** (2006.01); **H05B 3/28** (2006.01)

CPC (source: EP US)
H01L 21/02002 (2013.01 - US); **H01L 21/67103** (2013.01 - EP); **H01L 21/67248** (2013.01 - EP); **H01L 21/68792** (2013.01 - EP); **H05B 3/283** (2013.01 - EP); **H05B 2203/002** (2013.01 - EP); **H05B 2203/037** (2013.01 - EP)

Citation (search report)
• [X] JP 2012080103 A 20120419 - NGK INSULATORS LTD
• [X] US 2012211933 A1 20120823 - GOTO YOSHINOBU [JP]
• [X] US 2011005686 A1 20110113 - TANAKA SUMI [JP], et al
• [X] US 2008093315 A1 20080424 - OKABE AKIRA [JP]
• See references of WO 2014144502A1

Designated contracting state (EPC)
AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

DOCDB simple family (publication)
CN 105518825 A 20160420; CN 105518825 B 20180206; EP 2973659 A1 20160120; EP 2973659 A4 20161109; JP 2016522881 A 20160804; JP 6382295 B2 20180829; KR 102171734 B1 20201029; KR 20150132515 A 20151125; TW 201506989 A 20150216; TW I632589 B 20180811; TW M644795 U 20230811

DOCDB simple family (application)
CN 201480020826 A 20140314; EP 14764068 A 20140314; JP 2016502941 A 20140314; KR 20157029798 A 20140314; TW 103109558 A 20140314; TW 112200700 U 20140314