

Title (en)  
HEAT ALERT SAFETY DEVICE FOR STOVES AND RELATED APPLIANCES

Title (de)  
HITZEWARNUNGSSICHERHEITSEINRICHTUNG FÜR HERDE UND ÄHNLICHE HAUSHALTSGERÄTE

Title (fr)  
DISPOSITIF DE SECURITE DE SIGNALISATION DE TEMPERATURE ELEVEE, DESTINE A DES POELES ET APPAREILS ASSOCIES

Publication  
**EP 1410688 A4 20040616 (EN)**

Application  
**EP 00937995 A 20000531**

Priority  
US 0014990 W 20000531

Abstract (en)  
[origin: WO0193640A1] Liquid crystals compositions (24), i.e. cholesteric liquid crystals, designed to turn red at or above a specified temperature and remain red at or above that temperature and that are shaped in the outline of the word "HOT" are embedded on the top surface of the heating element (20) of stoves or on the window surface of wall ovens so that they glow red and instantly alert anyone that the heat element of the stove or the window is too hot to touch. For electric stoves, the liquid crystals are contained in the recessed area of the electric coil. For smooth cooktop stoves, the liquid crystal display is embedded in a top surface of the smooth area of glass (30) that forms the heating element of the stove. For gas stoves, the liquid crystals are embedded in a disk mounted on a top surface of the central metal element (10) of the heating element.

IPC 1-7  
**H05B 3/68**; F24C 3/00; G01K 11/16; H05B 3/74

IPC 8 full level  
**G01K 11/16** (2006.01); **H05B 3/68** (2006.01); **H05B 3/74** (2006.01)

CPC (source: EP US)  
**G01K 11/165** (2013.01 - EP US); **H05B 3/68** (2013.01 - EP); **H05B 3/746** (2013.01 - EP); **H05B 2213/04** (2013.01 - EP)

Citation (search report)  
• [Y] EP 0603969 A1 19940629 - PHILIPS ELECTRONIQUE LAB [FR], et al  
• [Y] US 5499597 A 19960319 - KRONBERG JAMES W [US]  
• See references of WO 0193640A1

Designated contracting state (EPC)  
AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE

DOCDB simple family (publication)  
**WO 0193640 A1 20011206**; AU 5309800 A 20011211; EP 1410688 A1 20040421; EP 1410688 A4 20040616

DOCDB simple family (application)  
**US 0014990 W 20000531**; AU 5309800 A 20000531; EP 00937995 A 20000531