

Title (en)

A ceramic heater and a method of manufacture thereof.

Title (de)

Keramisches Heizelement und Herstellungsverfahren dafür.

Title (fr)

Élément chauffant céramique et son procédé de fabrication.

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Application

EP 94307544 A 19941014

Priority

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- JP 28420493 A 19931020

Abstract (en)

This invention provides a ceramic heater of current self-control type, which has no gap in the boundary between the enclosure 1 and the filler 2, and which has reduced manufacturing cost, a stable strength and an improved heating performance. The invention also provides a method of manufacturing such a ceramic heater. In this ceramics heater, porous ceramic fillers 2, 3 are filled inside the end portions of the enclosure 1 made of a dense ceramics. The metal coil 10 consisting of the heater coil 6 and the current control coil 9 connected in series with each other is installed inside the enclosure 1, with the end surfaces 15 of the enclosure 1 hermetically closed by the sealing films 4. To prevent corrosion of the metal coil 10, the low heat conductivity ceramics 25 made from ceramic whiskers and/or ceramic powder is disposed in the central portion of the enclosure 1 and an N₂ gas is sealed therein. The heater coil 6 is arranged in contact with the inner wall surface 7 of that portion of the enclosure 1 where the filler 2 is located, and the current control coil 9 is spaced from the inner wall surface 8 of the enclosure 1 so as to be heat-insulated. <IMAGE>

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Cited by

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