

Title (en)  
INDUCTION CRUCIBLE FURNACE AND MAGNETIC YOKE THEREFOR

Title (de)  
INDUKTIONSTIEGELOFEN UND MAGNETISCHER RÜCKSCHLUSS HIERFÜR

Title (fr)  
FOUR A CREUSET A INDUCTION ET CULASSE MAGNÉTIQUE ASSOCIÉE

Publication  
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Application  
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Abstract (en)  
[origin: WO2017036438A1] The invention relates to an induction crucible furnace and to a magnetic return element for an induction crucible furnace. The induction crucible furnace has a corresponding coil and a plurality of magnetic return elements, which are designed in the form of individual units arranged on the outer lateral surface of the coil with peripheral spacing. In order to guide the magnetic flux produced by the coil, the magnetic return elements each have an assembly consisting of a plurality of elongate individual elements of magnetically permeable material that are electrically insulated from each other and extend parallel to the furnace axis. Said individual elements consist at least partially of bars, which are electrically insulated from each other and the longitudinal axes of which extend parallel to the furnace axis. In this way, both eddy currents that hit the assembly from the radial direction and eddy currents that hit the assembly with a transverse component are minimized.

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