Title (en)

SUPERCONDUCTORS AND METHODS OF MANUFACTURING THE

Title (de)

SUPRALEITER UND HERSTELLUNGSVERFAHREN DAFÜR

Title (fr)

SUPRACONDUCTEURS ET LEURS PROCÉDÉS DE FABRICATION

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Abstract (en)

[origin: WO2012093303A1] A method of manufacturing superconductors with critical temperature Tc>300K is disclosed. This method is from a theory of high-Tc superconductivity wherein the doping mechanism of superconductivity is found. A kind of superconductors composed by this method is the AlB2-type superconductors obtained by doping AlB2-type intermetallics such as Sr(1-x)Ca(x)Ga2. Another kind of superconductors composed by this method is the CaCu5-type superconductors obtained by doping CaCu5-type intermetallics such as L(1-x)A(x)Cu5, LCu(5(1-x))Ni(5x) (A=Ca, Sr; L=La, Y, Mm), Sr(1-x)Ca(x)Cu5, La(1-x)Sr(x(1-y))Ca(xy)Cu5. In particular the CaCu5-type intermetallics LaNi5 and MmNi5 are superconductors with critical temperature Tc>300K. These CaCu5-type superconductors are with high critical current densities and thus are applicable for the transmission of electricity

IPC 8 full level

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