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(54) **HIGH-TEMPERATURE SUPERCONDUCTING JOSEPHSON JUNCTION, SUPERCONDUCTING ELECTRONIC DEVICE HAVING THE SAME, AND METHOD FOR FORMING THE HIGH-TEMPERATURE SUPERCONDUCTING JOSEPHSON JUNCTION**

HOCHTEMPERATURSUPRALEITENDER JOSEPHSON-KONTAKT, SUPRALEITENDES ELEKTRONISCHES BAUELEMENT DAMIT UND VERFAHREN ZUR HERSTELLUNG DES HOCHTEMPERATURSUPRALEITENDEN JOSEPHSON-KONTAKTS

JONCTION JOSEPHSON DE SUPRACONDUCTEURS HAUTE TEMPERATURE, PROCEDE DE FABRICATION ASSOCIE ET DISPOSITIF ELECTRONIQUE SUPRACONDUCTEUR COMPRENANT LADITE JONCTION

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(56) References cited:
JP-A- 1 145 878 JP-A- 2 277 275
JP-A- 5 037 030 JP-A- 10 074 989
JP-A- 2002 141 564 US-B1- 6 275 716

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- **HEINSOHN J-K ET AL: "Current transport in ramp-type junctions with engineered interface" JOURNAL OF APPLIED PHYSICS, vol. 89, no. 7, 1 April 2001 (2001-04-01), pages 3852-3860, XP012053215**
- **APPELBOOM H M ET AL: "Lanthanum and calcium doped YBa2Cu3Oy films grown at low temperature and pressure" PHYSICA C, vol. 221, no. 1-2, 1994, pages 125-135, XP022799142**

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- WAKANA H ET AL: "Influence of counter-layer deposition condition on critical current spread in interface-modified ramp-edge junction arrays" JAPANESE JOURNAL OF APPLIED PHYSICS, PART 2, vol. 41, no. 3A, 1 March 2002 (2002-03-01), pages L239-L242, XP002532137
- TAKEHIKO MAKITA ET AL.: 'Fabrication and characterization of Y-Ba-Cu-O and Nd-Ba-Cu-O ramp-edge junctions with an interface-modified barrier' IEEE TRANSACTIONS ON APPLIED SUPERCONDUCTIVITY vol. 11, no. 1, March 2001, pages 155 - 158, XP002958979
- TAKEHIKO MAKITA ET AL.: 'Fabrication of ramp-edge junction with NdBa₂Cu₃O_y-based interface-modified barrier' JN. J. APPL. PHYS. vol. 39, no. 7B, 15 July 2000, pages L730 - L732, XP000977856