

Title (en)
DIFFUSION BARRIERS FOR METALLIC SUPERCONDUCTING WIRES

Title (de)
DIFFUSIONSSPERREN FÜR METALLISCHE SUPRALEITENDE DRÄHTE

Title (fr)
BARRIÈRES DE DIFFUSION POUR FILS SUPRACONDUCTEURS MÉTALLIQUES

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Application
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Abstract (en)
[origin: WO2019173593A1] In various embodiments, superconducting wires incorporate diffusion barriers composed of Nb alloys or Nb-Ta alloys that resist internal diffusion and provide superior mechanical strength to the wires.

IPC 8 full level
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H10N 60/0184 (2023.02 - EP); **H10N 60/20** (2023.02 - EP); **H10N 60/85** (2023.02 - KR)

Citation (search report)
• [YA] US 2016247606 A1 20160825 - THOENER MANFRED [DE], et al
• [Y] JP 2014137917 A 20140728 - HITACHI METALS LTD
• [A] JP 2013062039 A 20130404 - JAPAN SUPERCONDUCTOR TECH
• [A] EP 1705721 A2 20060927 - KOBE STEEL LTD [JP]
• [A] US 2013053250 A1 20130228 - OHATA KATSUMI [JP], et al
• [A] WO 2017058332 A2 20170406 - STARCK H C INC [US], et al

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DOCDB simple family (publication)
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