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Suggested title of session
Suggested Session Title:
Approaches to High-T_c Josephson Devices

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Catagory:
15 (1)

Transport Measurements of Grain Boundary Flux-Flow Transistors. M.J. BURNS† and G. ZAHARCHUK, Conductus, Inc. -- Three-terminal active devices, with many aspects similar to previously reported[1] Flux Flow Transistors have been made. The devices are composed of a series of grain boundary Josephson junctions with a nearby magnetic control line. The Josephson junctions were fabricated using the biepitaxial process[2] that uses an underlying seed layer to create an in-plane 45° c-axis rotation. Devices were created containing up to 23 junctions with 2 μm separation. Device switching properties and the dependence of the I-V curve on the magnetic field applied by the control line are explored. The behavior of these devices will be discussed along with applicable models of the device behavior.

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[1]Hohenwarter, et al., *IEEE Transactions on Magnetics* 25, 954 (1989)

[2]Char, et al., *Appl. Phys. Lett.* 59, 733 (1991)

Prefer Standard Session

Signature of APS Member

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