

## A Two-Level Undercut-Profile Substrate for Chemical-Solution-Based Filamentary Coated Conductors - DTU Orbit (09/11/2017)

### A Two-Level Undercut-Profile Substrate for Chemical-Solution-Based Filamentary Coated Conductors

A recently developed two-level undercut-profile substrate (2LUPS), containing two levels of plateaus connected by a curved wall with an undercut profile, enables self-forming filaments in a coated conductor during physical line-of-sight deposition of buffer and superconducting layers. In the present study, the 2LUPS concept is applied to a commercial cube-textured Ni-5at.% W tape, and the surface of the 2LUPS coated with two  $Gd_2Zr_2O_7$  buffer layers using chemical solution deposition is examined. Except for narrow regions near the edge of upper plateaus, the plateaus are found to be covered by strongly textured  $Gd_2Zr_2O_7$  buffer layers after dip coating and sintering.

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Authors: Wulff, A. C. (Intern), Lundeman, J. H. (Ekstern), Hansen, J. B. (Ekstern), Mishin, O. (Intern), Yue, Z. (Intern), Mohajeri, R. (Ekstern), Grivel, J. (Intern)

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