Contribution ID: **468** Type: **Invited Oral**

M3Or3H-06: [Invited] Database of VSM In-Field Performance of REBCO Coated Conductor at 4.2-77 K, 0-14 T

Wednesday 12 July 2023 15:10 (15 minutes)

We present results on a set of REBCO coated conductor samples characterized for their in-field performance using Vibrating Sample Magnetometry (VSM) over temperatures and fields of 4.2-77 K and 0-14 T. All REBCO samples contain Artificial Pinning Centers (APC) in the form of BMO nanorods (BMO¬3¬, M = Zr, Hf). Principal component analysis of VSM will be presented, identifying the main modes of variability relative to the average performance. Correlation between in-field performance at different temperatures and fields is analyzed. This work has led to reel-to-reel in-field critical current measurement of long tapes up to 4 T at 65 –77 K to determine the in-field critical current of the tapes at high fields at low temperatures.
This work was funded by award DE-SC0016220 from the U.S. Department of Energy, Office of Science –High Energy Physics.

Primary author: MAJKIC, Goran

Presenter: MAJKIC, Goran

Session Classification: M3Or3H: Special Session: Low Temperature Materials Database A Superconductors