

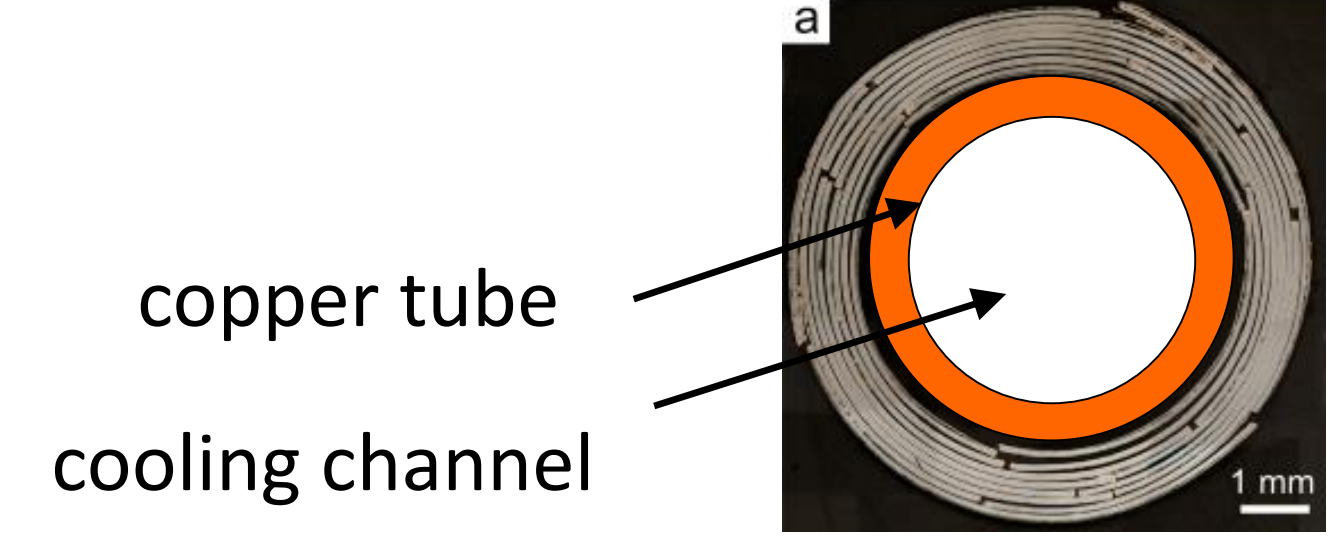
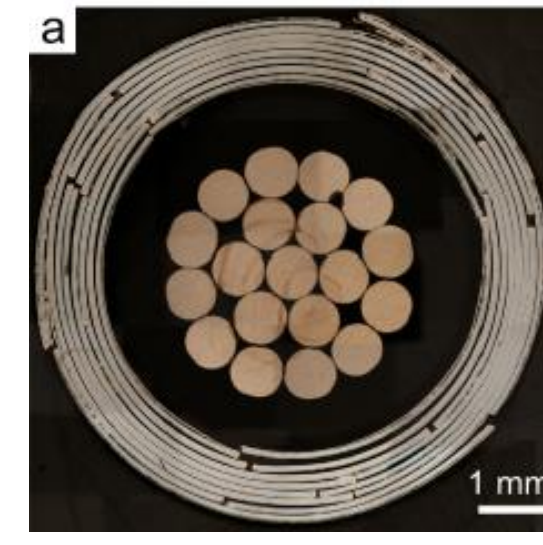
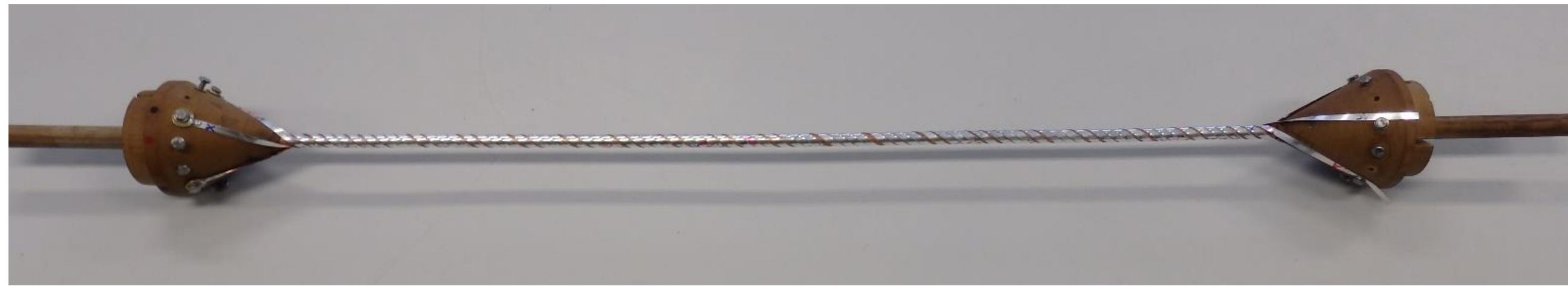


# Forced flow cooling of HTS CORC cable used in superconducting coil

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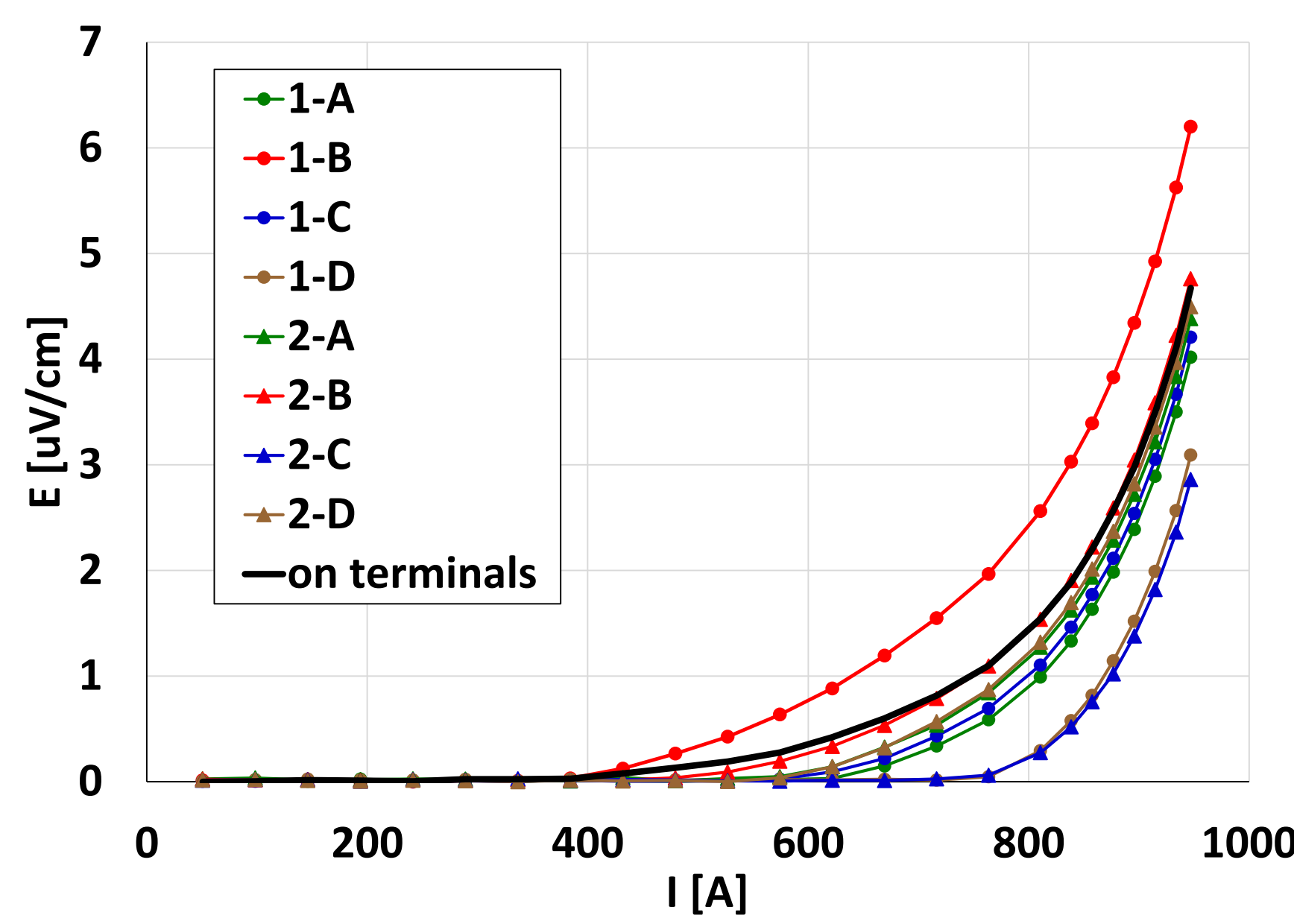
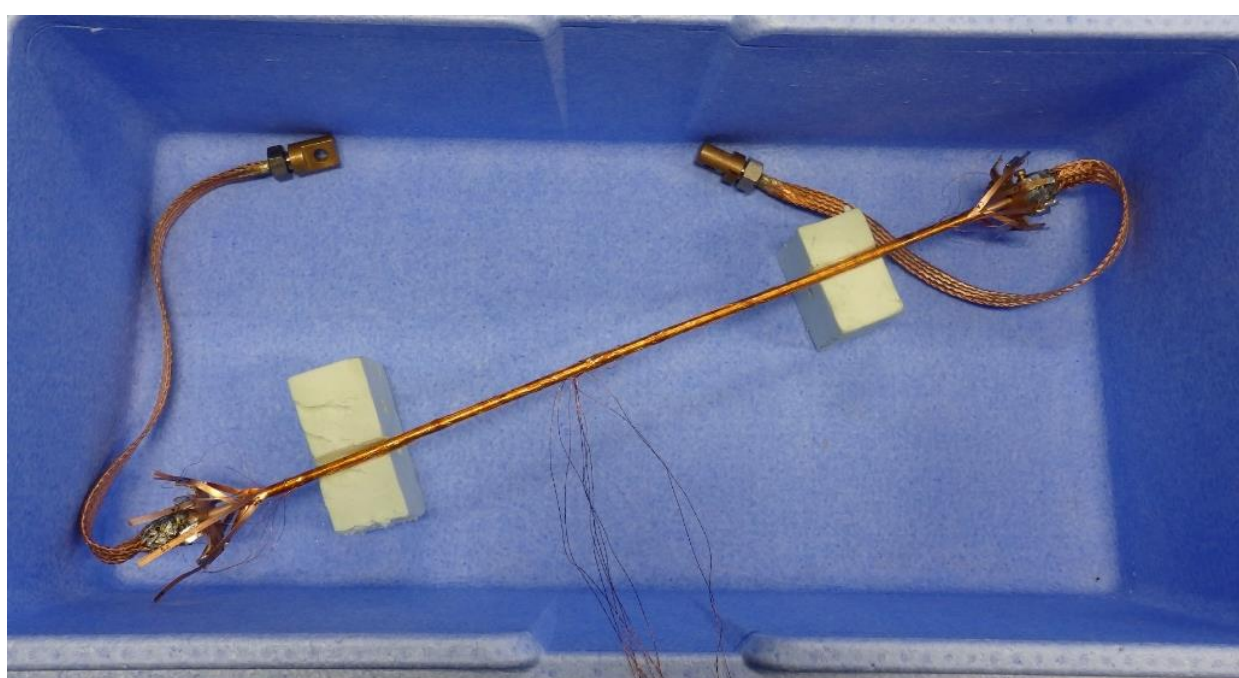
**CORC<sup>®</sup> cables** Conductor On Round Core



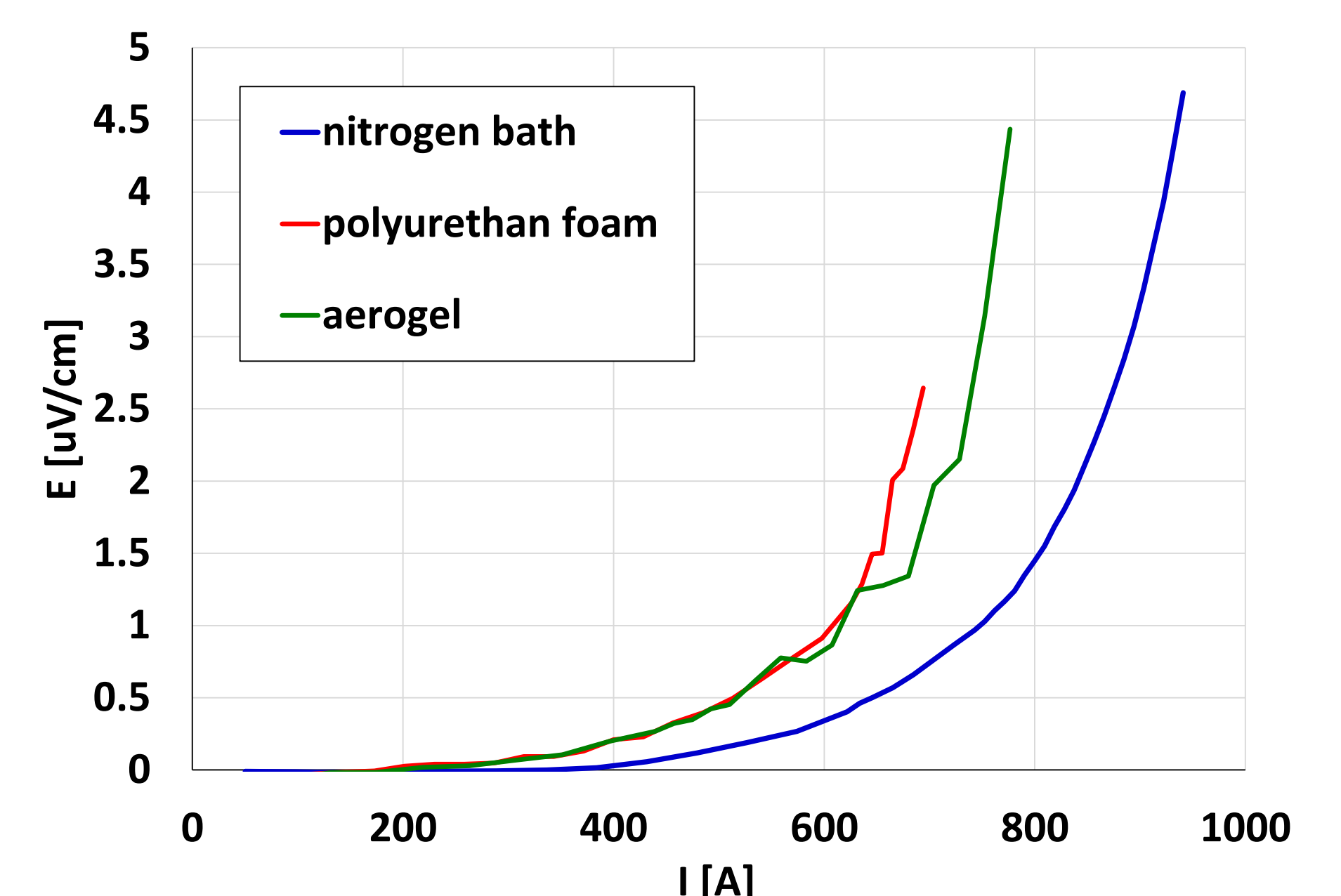
D C van der Laan,  
Supercond. Sci. Technol. 24 (2011) 042001 (6pp)

## Forced flow cooled cable

Cable with 2 layers, each of 4 tapes  
Length – 40 cm

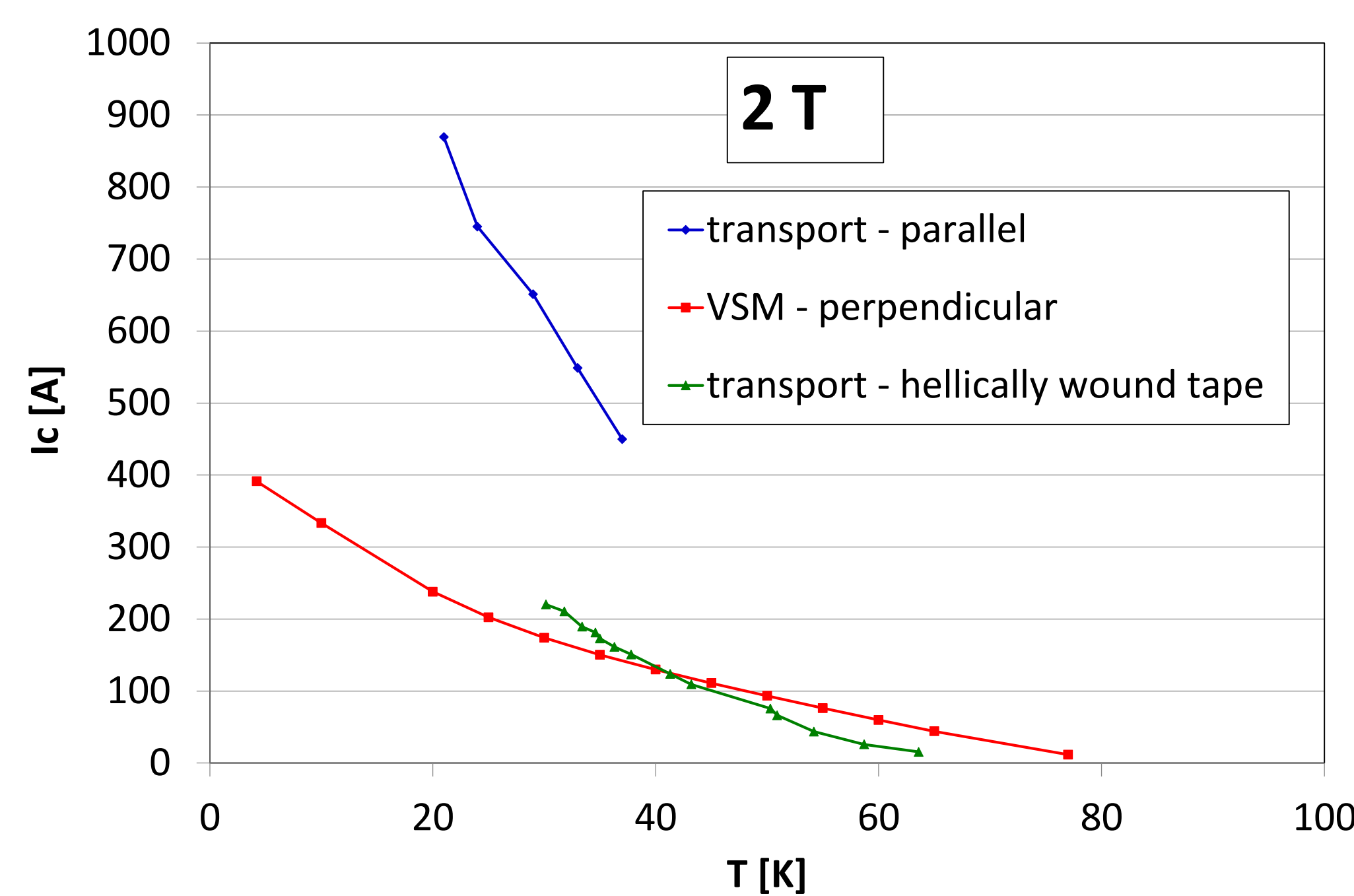
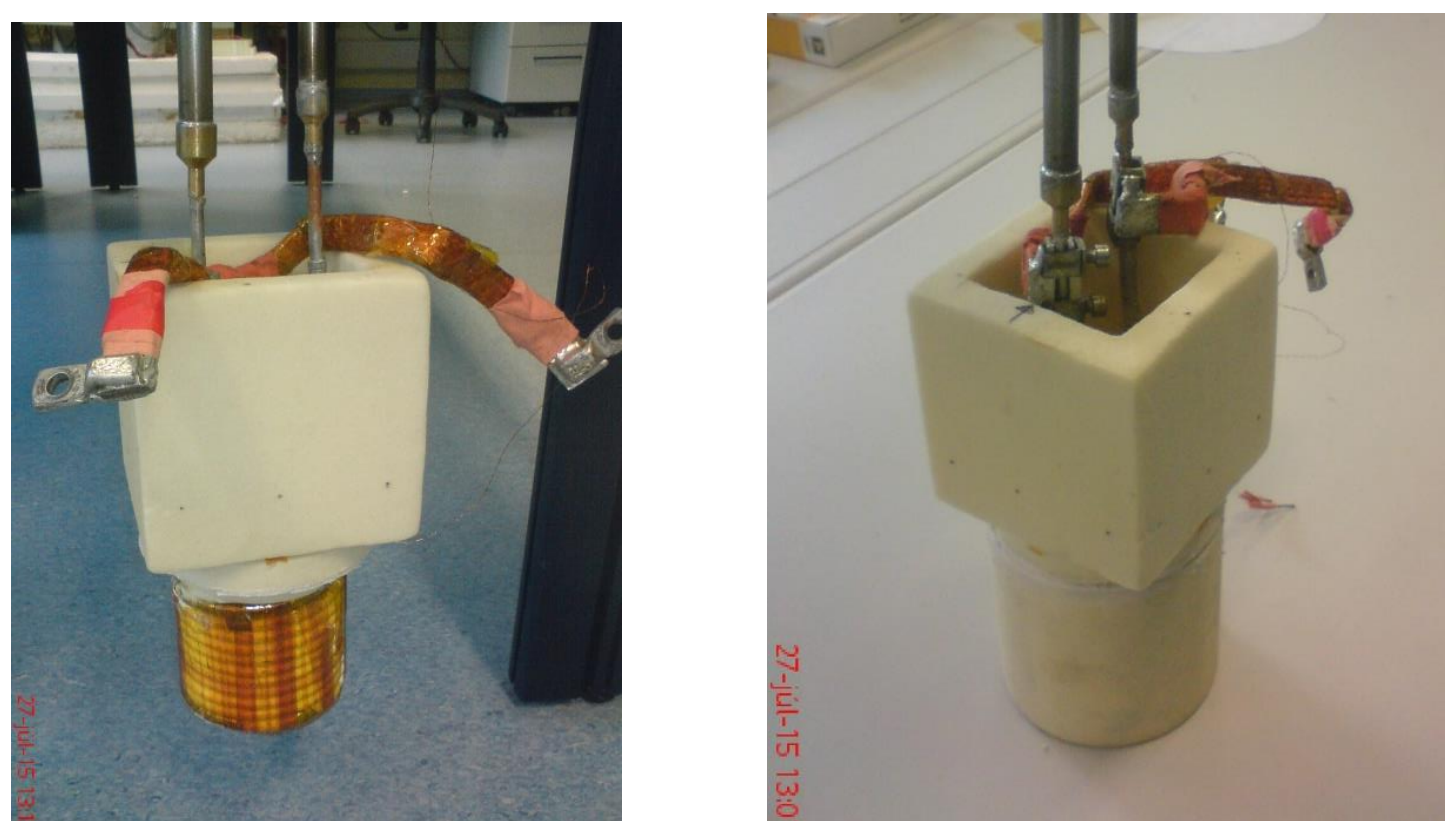


Performance in liquid nitrogen bath

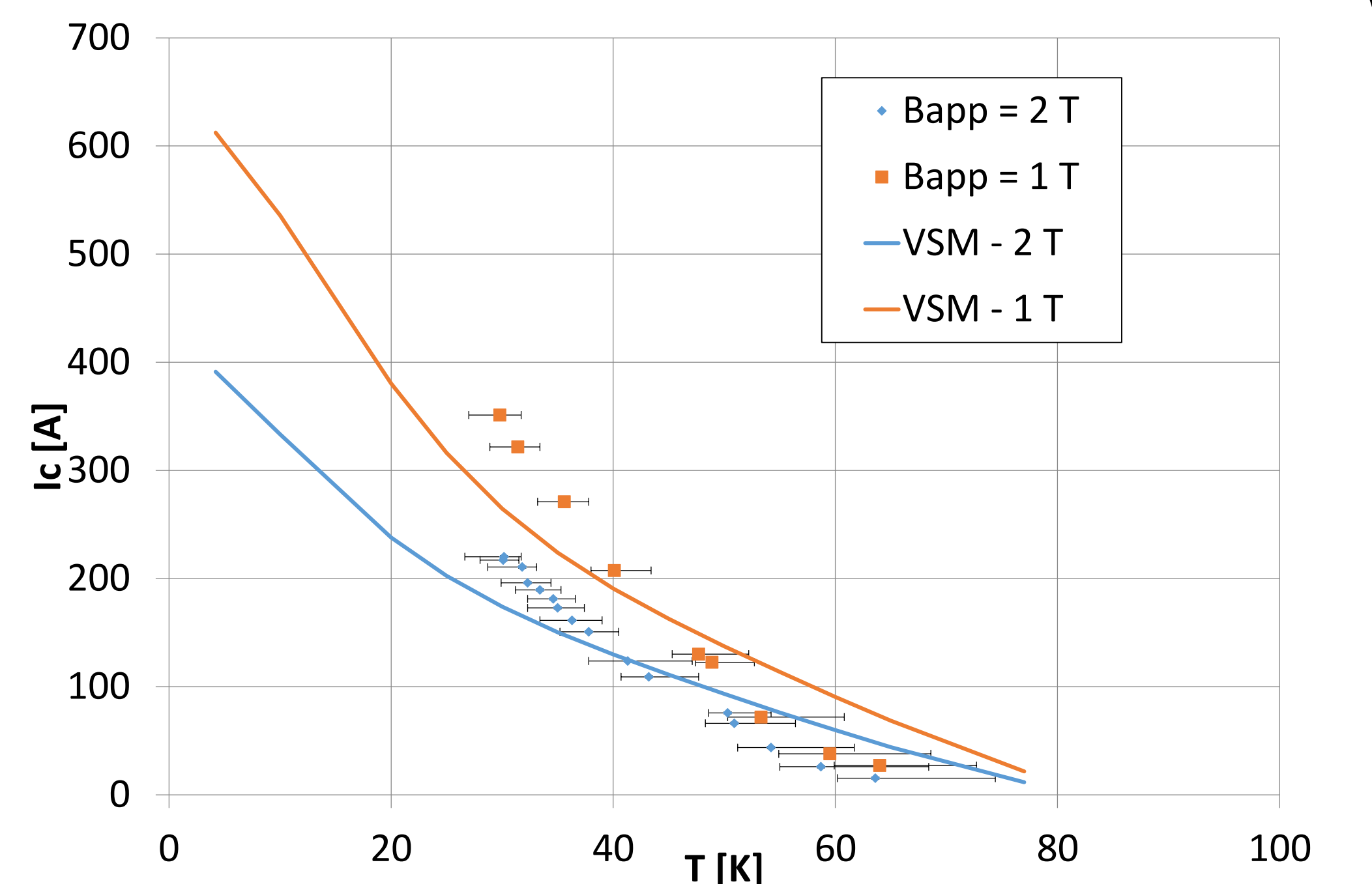


Forced flow cooling by liquid nitrogen

## Test coil with single tape



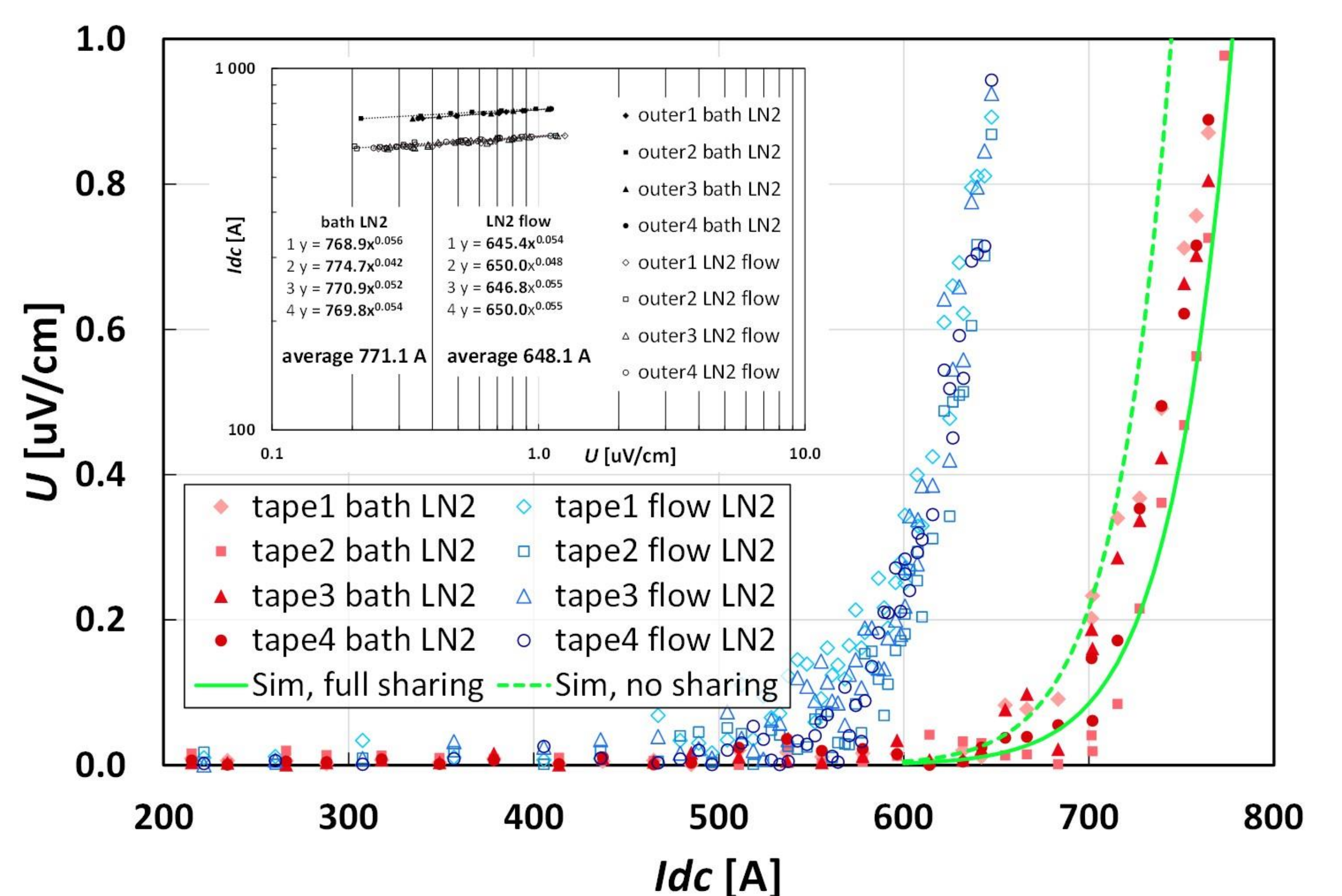
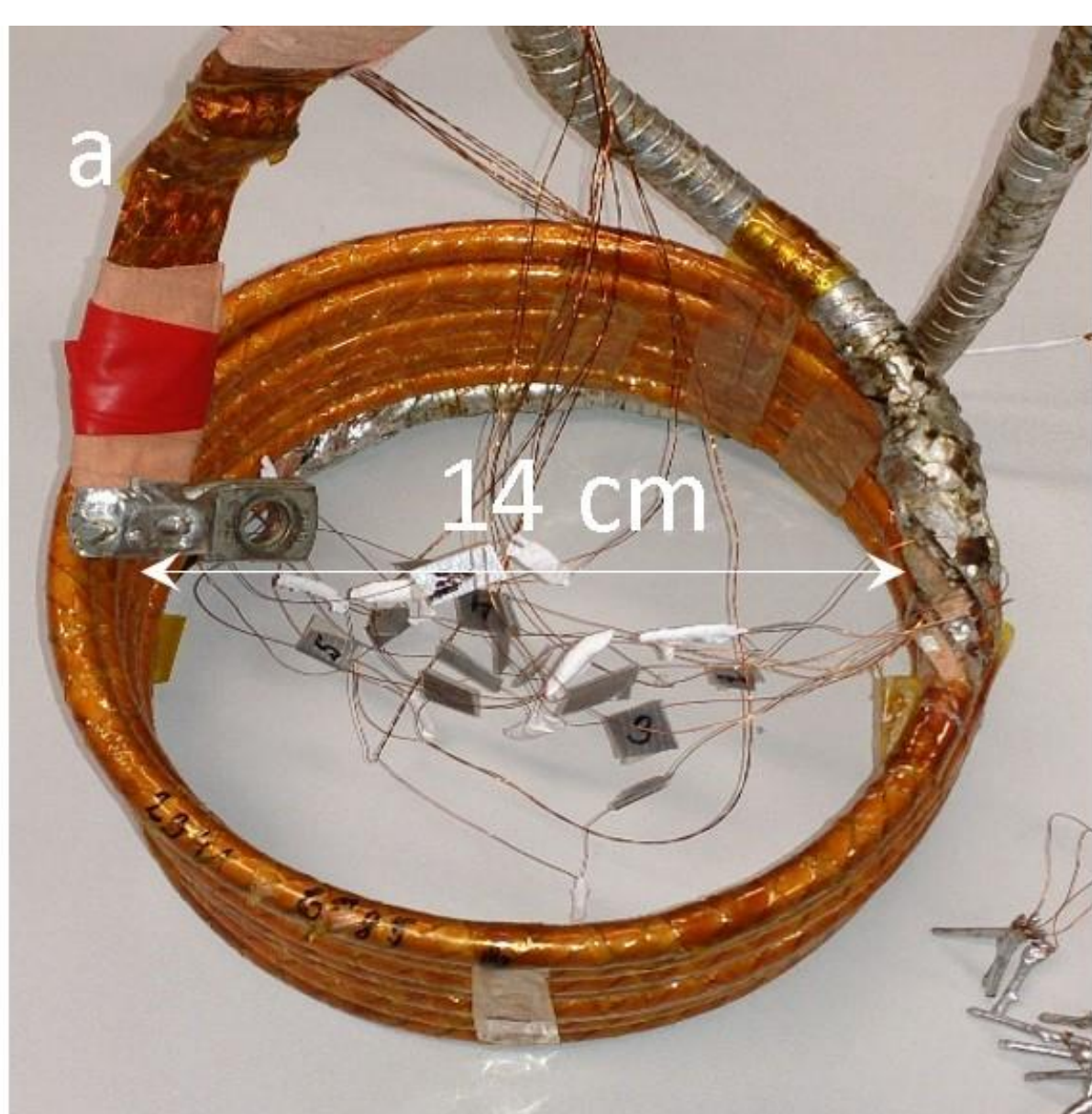
Performance of helically wound tape is close to tape in perpendicular field



At lower temperatures helically wound tape takes benefit of higher anisotropy

## Coil made of cable with 4 tapes

- non-vacuum insulation (aerogel)
- 4 superconducting tapes (SuNAM)



Temperature elevated by about 1.5 K above LN2 temperature