

400 MHz and 800 MHz fabrication status

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Comparison between the first and the second cavity production steps



Before the Annealing



After 1° Annealing



After 2° Annealing

@ CERN



@ LNL

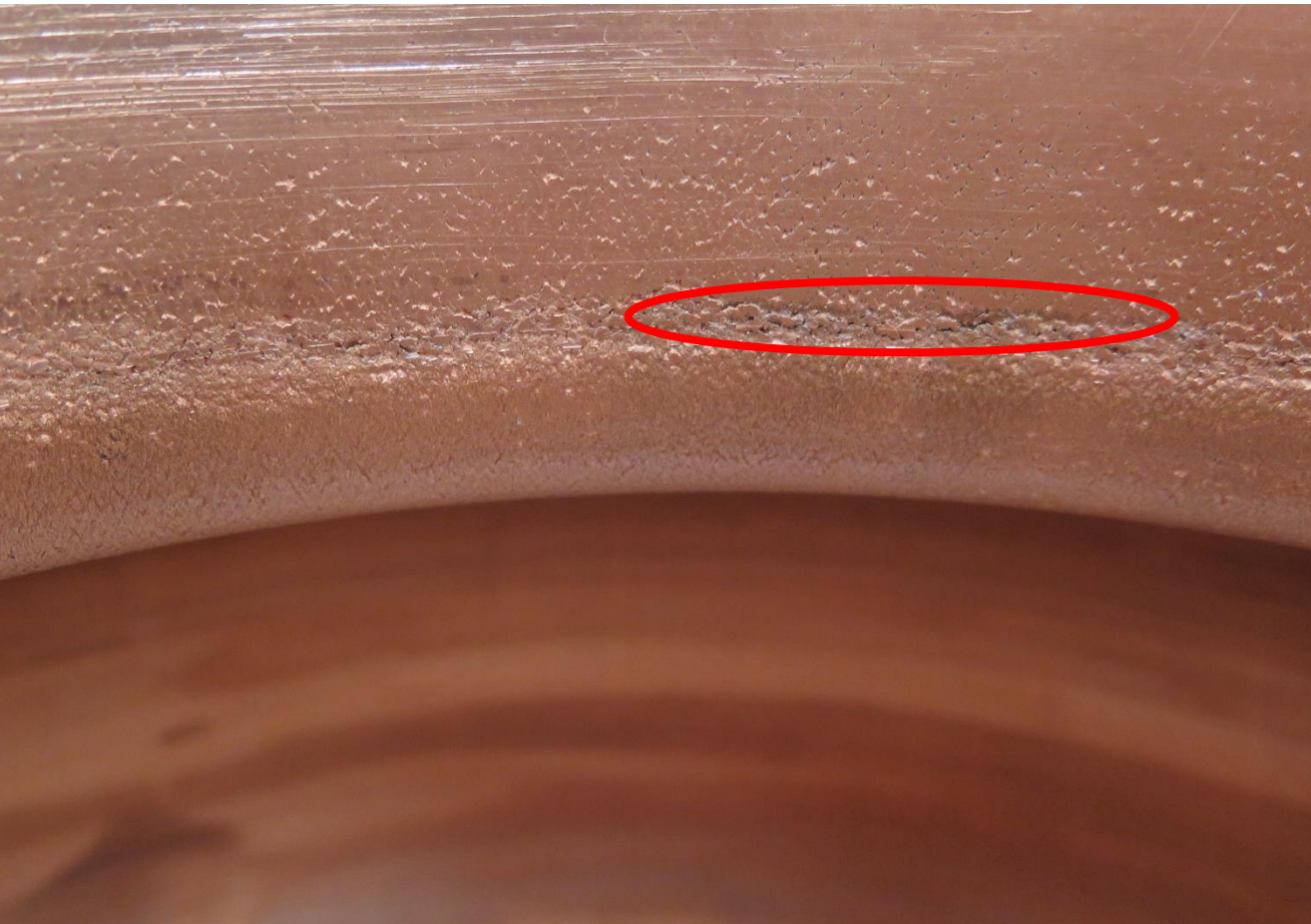
Failiure on the 1st Prototype 400MHz Cavity



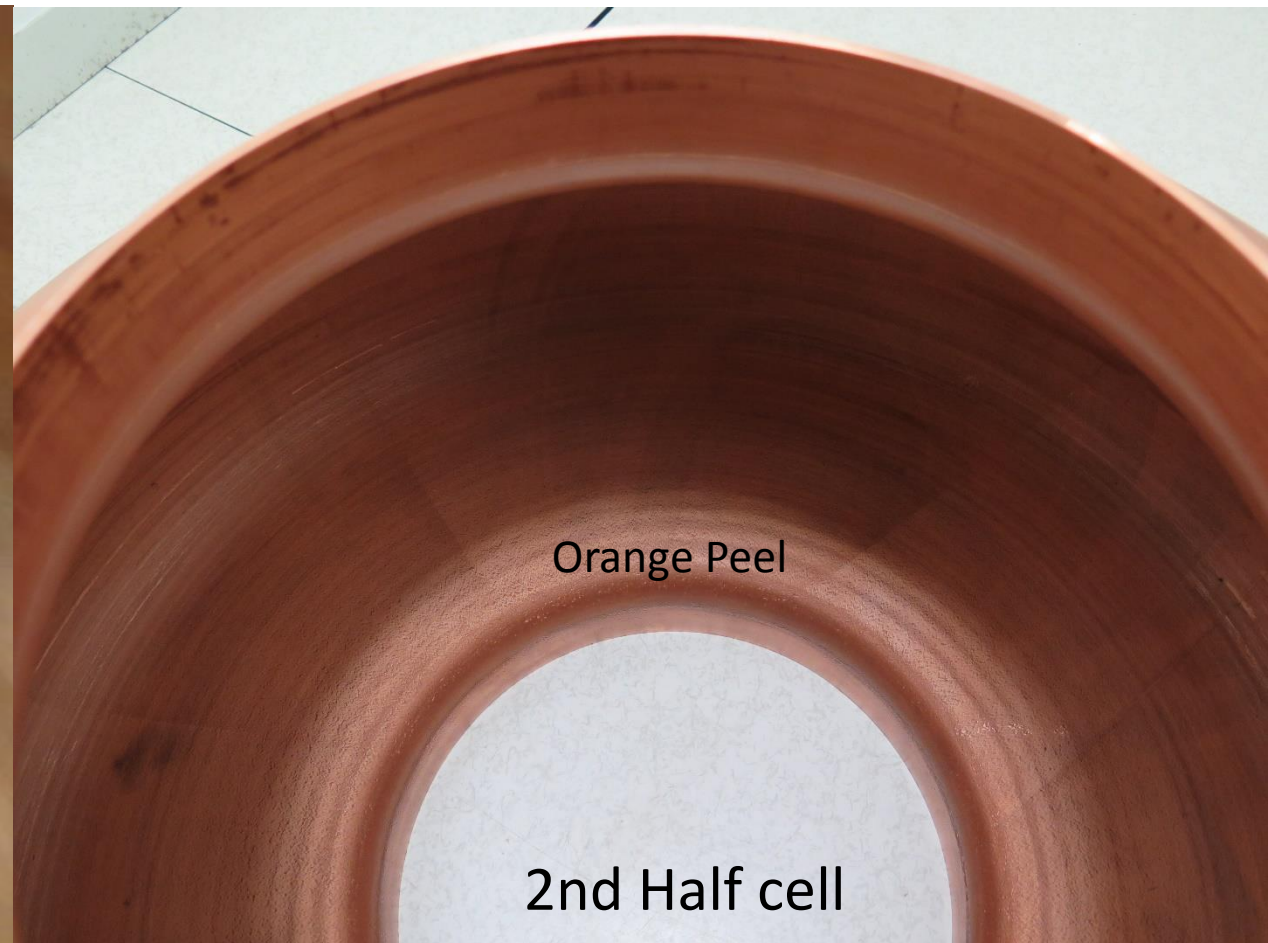
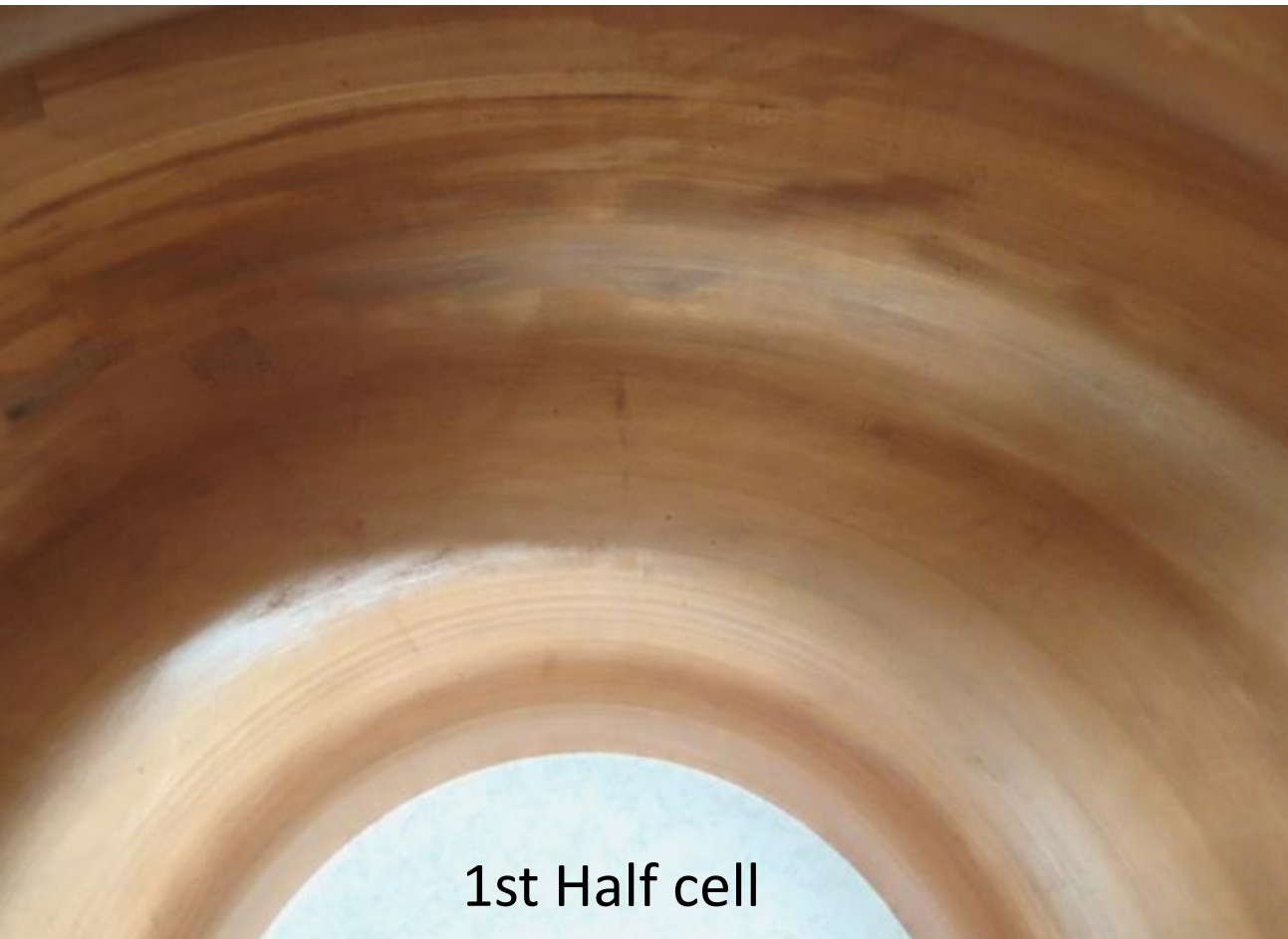
Improvement of the Machinability for the 2nd Prototype 400MHz Cavity



Detailed defect



Surface Comparison



400 & 800 MHz Monocells Production Steps

Following these points:

1. New plastic die (the old one was deformed during the first two 400 MHz cavities production)
2. New intermediate die for the 400 MHz cavities (to reduce the stress induced during the spinning)
3. Production of the 400 MHz cavities
4. Production of the dies (iron and plastic) for the 800 MHz
5. OFE Copper supplying for 800 MHz on February 2019

Material for new dies (400 MHz)	0 g	ven 15/02/19	ven 15/02/19
Production of the new die (400 MHz)	14 g	ven 15/02/19	mer 06/03/19
Production of the new intermediate die for 400 MHz	7 g	gio 07/03/19	ven 15/03/19
Production of the die for the 800 MHz	14 g	lun 18/03/19	gio 04/04/19
Copper for 800 MHz cavities	0 g	gio 28/02/19	gio 28/02/19
800 MHz cavity Production (4 cavity)	59 g	gio 28/02/19	mar 21/05/19
Deep drawing 800 MHz (4 cavity)	5 g	gio 28/02/19	mer 06/03/19
first half cell (4 cavity)	5 g	ven 05/04/19	gio 11/04/19
second half cell before first annealing (4 cavity)	5 g	ven 12/04/19	gio 18/04/19
first annealing	5 g	mer 24/04/19	mar 30/04/19
second half cell after first annealing (4 cavity)	5 g	mer 01/05/19	mar 07/05/19
second annealing	5 g	mer 08/05/19	mar 14/05/19
second half cell after second annealing (4 cavity)	5 g	mer 15/05/19	mar 21/05/19
400 MHz cavity Production (2 cavity)	50 g	lun 04/03/19	sab 11/05/19
Deep drawing 400 MHz (2 cavity)	4 g	lun 04/03/19	gio 07/03/19
first half cell (2 cavity)	4 g	ven 08/03/19	mer 13/03/19
second half cell before first annealing (2 cavity)	4 g	lun 18/03/19	gio 21/03/19
first annealing	5 g	ven 22/03/19	gio 28/03/19
second half cell after first annealing (2 cavity)	4 g	ven 29/03/19	mer 03/04/19
second annealing	5 g	gio 04/04/19	mer 10/04/19
second half cell after second annealing (2 cavity)	4 g	gio 11/04/19	mar 16/04/19
third annealing	5 g	mer 17/04/19	mar 23/04/19
second half cell after third annealing (2 cavity)	4 g	mer 24/04/19	lun 29/04/19
fourth annealing	5 g	mer 01/05/19	mar 07/05/19
second half cell after fourth annealing (2 cavity)	4 g	mer 08/05/19	lun 13/05/19

