# SSR2 325 MHz Proto Coupler Status at IJCLab

Sandry Wallon

1. PMB procurements

All components / parts received except :

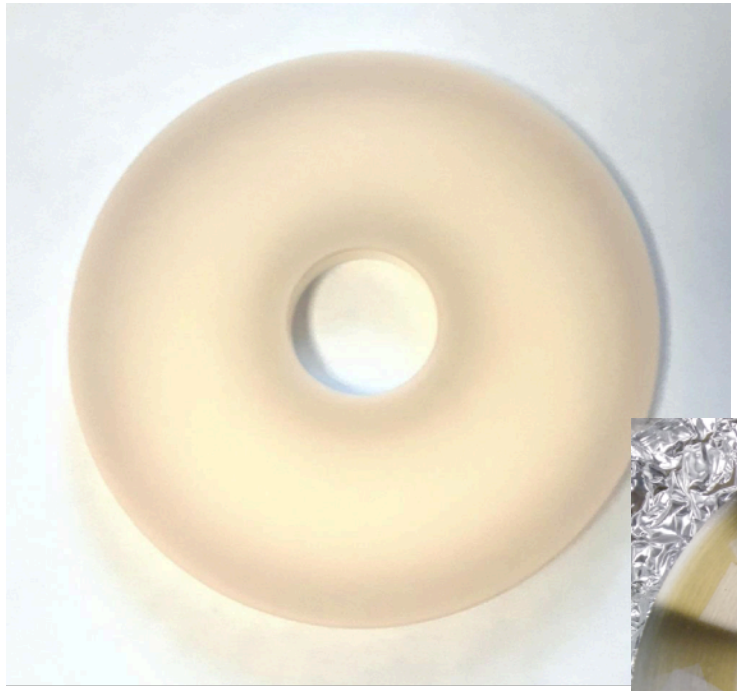
- interface between outer bellow / outer cond.
- T junction parts
- flanges
- antenna

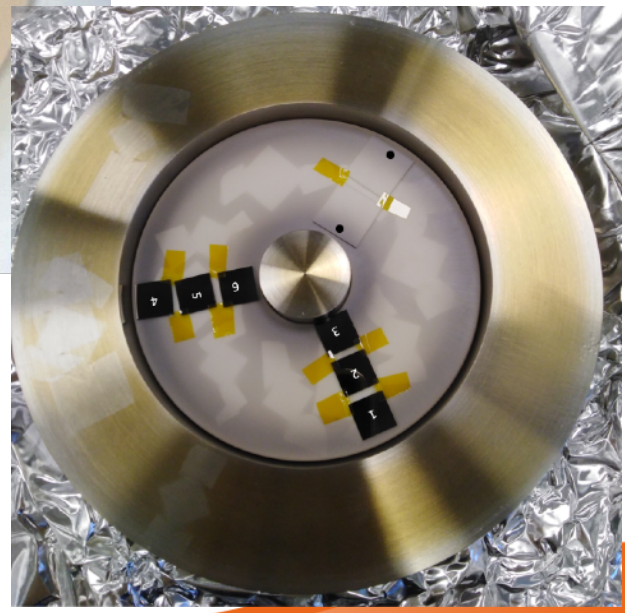
2. Tools for low level RF measurements (before shipment to FNAL) : order not placed ; to be done next year

3. TiN coating non uniformity issue

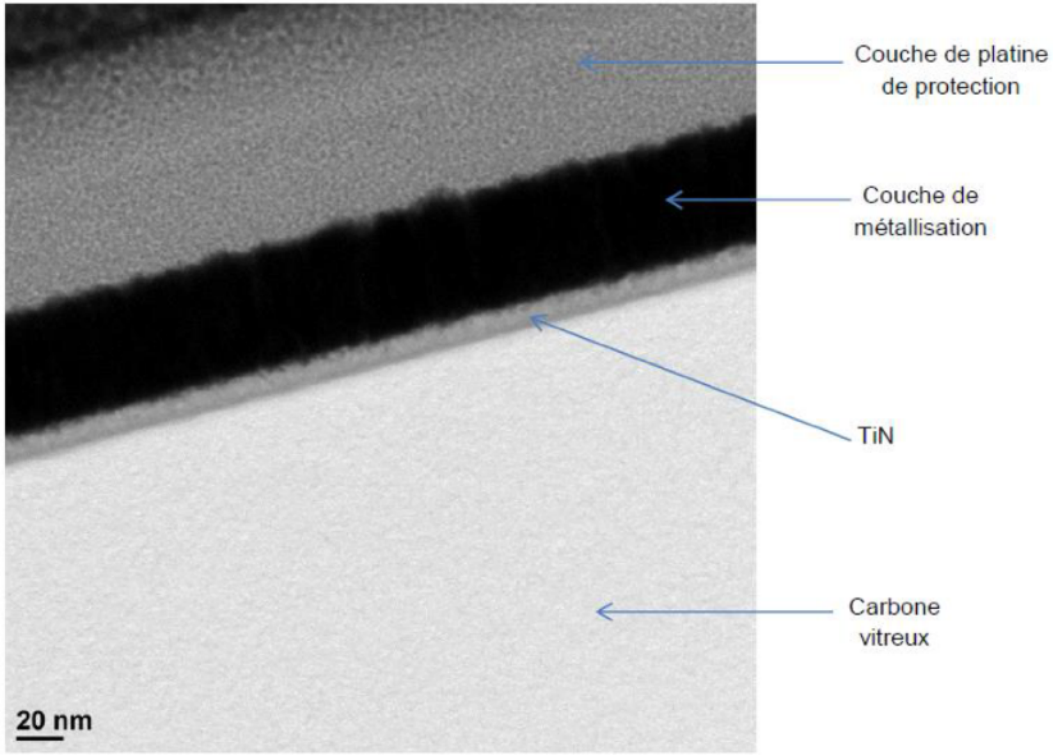
Results from 2nd campaign of tests :

- Non uniform color comes from SS tools pollution (See David's presentation "Analyse dépot TiN PMB_fenetre")
- Thickness is uniform (see next slide)
- No pollution expected with Copper sleeves to be brazed on ceramic
- AL 300 samples to be analyzed at IJCLab (SEY measurement)





# Mesures d'épaisseur réalisées par TEM sous traitant PMB




| | Epaisseurs moyennes et écarts-types (nm) TiN |
|---|---|
| Echantillon V1 | 10,7 ± 0,5 |
| Echantillon V2 | 8,9 ± 0,5 |
| Echantillon V3 | 8,1 ± 0,4 |

4. Ceramic brazing trial

- (Special) Metallization done
- Brazing to be done this week
- Then 1st sample : cut and brazing seal analysis
- And 2nd sample : tomography then TiN (or the opposite order)

5. Copper coating

- Parts to be welded (next week) and shipped to copper coating Cie

6. Cold outer conductors machined parts

- some parts come with non conformity w/ respect of PMB's manufacturing drawings (circularity above 0.05 mm)
- not an issue according to PMB (thanks differential thermal expansion during brazing)
- IJCLab asked for circularity measurement at intercept locations

7. Mounting operation at PMB

- Laminar flow facility moved to prepare the new clean zone to be used for PIP2 couplers
- Laminar flow check (1st check prior getting final “set up”) : ISO 5 level reached
- (NB. cold part assembled in semiconductor Cie)

8. Visit on site

to be done next week

9. Shipment : Mid April (unchanged)