

BOLOGNA STATUS REPORT

February 2019

NTDs exposed in MoEDAL (2014-2015 / 2016-2017): 37,8 m²

- **Etching conditions:** 5,5N KOH + 20% Alcohol denatured with 3% MEK at 45°C - 15h
- **Etching status:** 100 % completed,
- **Scanning status:** 11 m², ~ 29 %

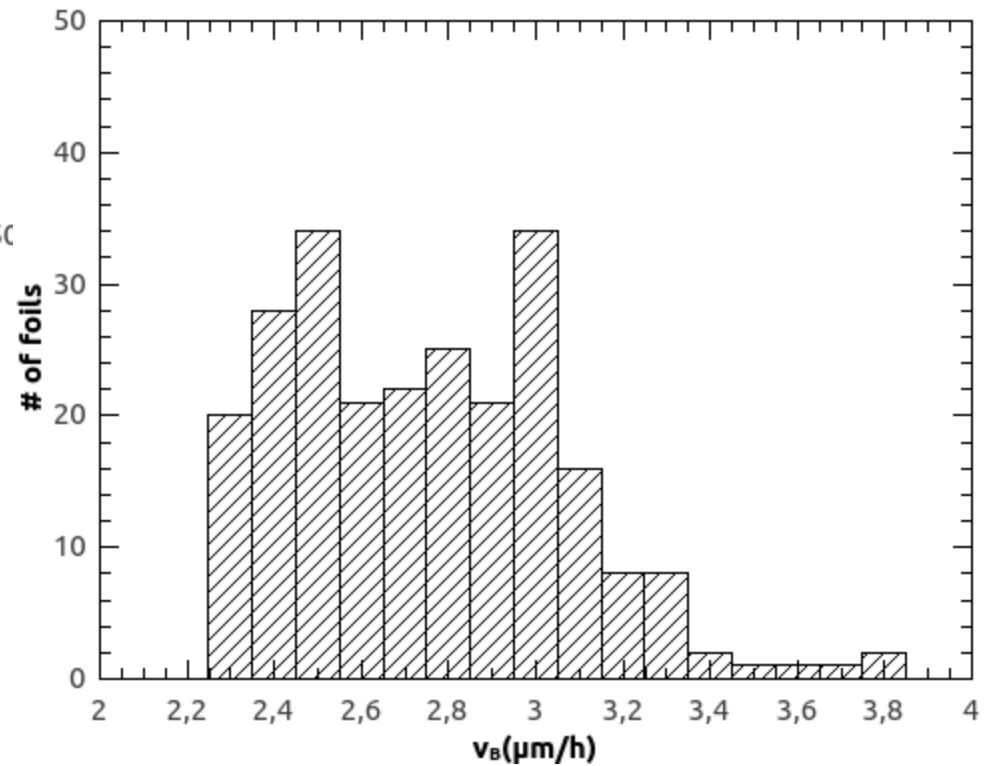
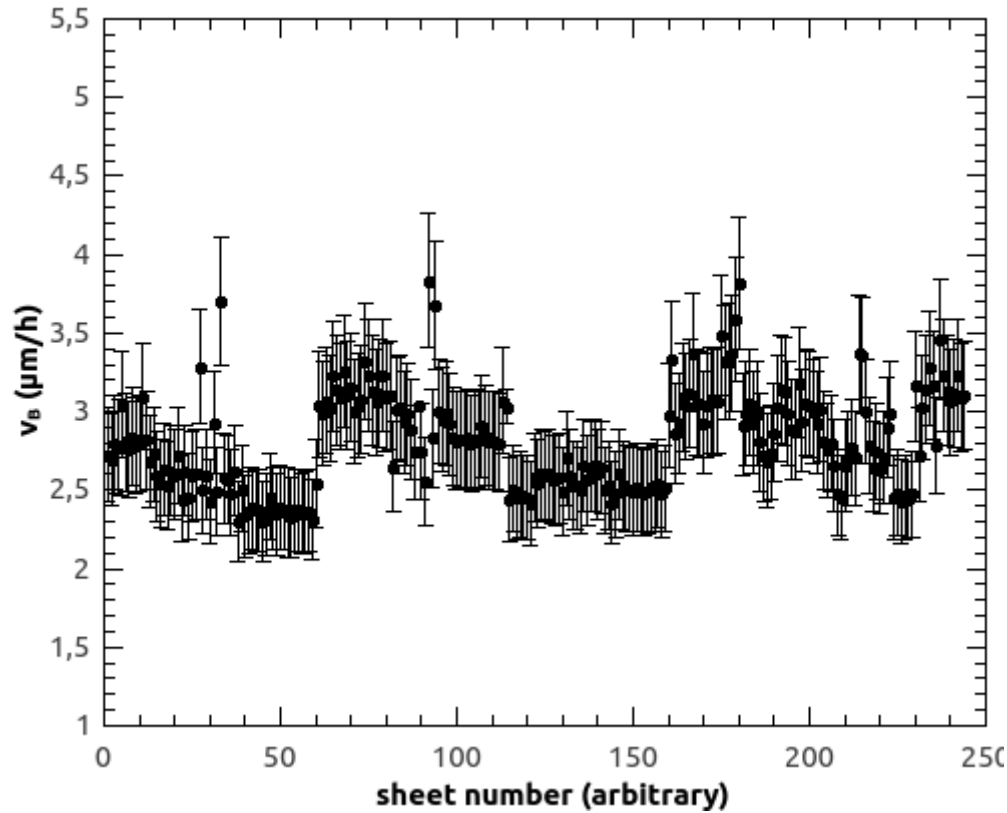
Note: about 3,9 m² with very low background, mostly HI 2015
– HI 2016

STATUS OF ETCHING AND ANALYSIS February 2019

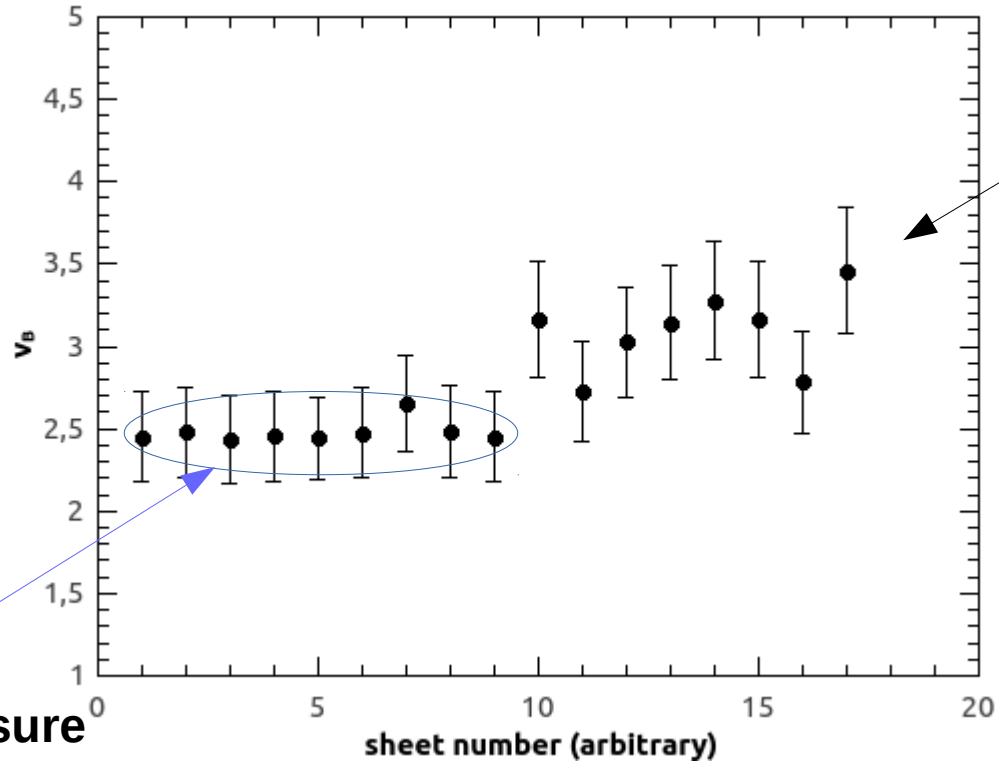
LHC RUN Moedal Exposure	EXPOSED AREA	ETCHED AREA	SCANNED AREA	ETCHNG Completion	SCANNING Completion
2009- 2012	7.8 m ²	7.8 m ²	7.8 m ²	✓	✓
2014- 2015	<i>Standard stacks:</i> 10.7 m ²	10.7 m ²	9.5 m ²	✓	
	<i>HCC stacks:</i> 6.2 m ²	6.2 m ²	1.5 m ²	✓	
2016- 2017	<i>Standard stacks:</i> 11.2 m ²	11.2 m ²	-	✓	
	<i>HCC stacks:</i> 9.7 m ²	9.7 m ²	-	✓	

- **Standard stacks: 24 cm x 24 cm**
- **HCC stacks: 180 cm x 45 cm**

V_B measured for some 2014-2015 and 2016-2017 MoEDAL exposed foils



Group of 24/01/2019



Long time exposure
(> 1 year
(09/2016 to 12/2017)

short time exposure
HI 2016
(~1 month)

Foils etched together (24/01/2019)

NTDs Database

1	A	B	C	D	E	F	G	H	I	J	K	L	M
	Name	Position	In	out	Time of exposure	Type of ions	Etching Group	Etching conditions	V_B	ΔV_B	Status	Background type	Possible track
2	L5 New CR							5,5N KOH + 20% Al ϕ	2,55	0,80			
3	NT313101-L5							20H -	3,83	1,20			
219	NT141202-L2		15/09/16	16/12/17	15 months		24/01/19	5,5N KOH + 20% Al ϕ	2,65	0,83			
220	HCC4-1-L1-4		HI2016				24/01/19	15H	2,48	0,78		Very Low	
221	HCC4-1-L1-2		HI2016				24/01/19		2,45	0,76		Very Low	
222	NT931302-BIS-L2		15/09/16	16/12/17	15 months		23/01/19		2,65	0,83			
223	NT314504-L2		15/09/16	16/12/17	15 months		23/01/19		2,70	0,84			
224	NT931502-L2		15/09/16	16/12/17	15 months		23/01/19		2,77	0,86			
225	NT931402-L2		15/09/16	16/12/17	15 months		23/01/19		2,70	0,84			
226	NT314403-L2		15/09/16	16/12/17	15 months		23/01/19		3,37	1,05			
227	NT314303-L2		15/09/16	16/12/17	15 months		23/01/19		3,36	1,05			
228	NTA21402-L2		15/09/16	16/12/17	15 months		23/01/19		3,00	0,94			
229	NTA22103-L2		15/09/16	16/12/17	15 months		23/01/19		2,79	0,87			
230	NTA22302-L2		15/09/16	16/12/17	15 months		23/01/19		2,65	0,83			
231	NTA22203-L2		15/09/16	16/12/17	15 months		23/01/19		2,75	0,86			
232	NTA22402-L2		15/09/16	16/12/17	15 months		23/01/19		2,64	0,82			
233	NTA22502-L2		15/09/16	16/12/17	15 months		23/01/19		2,71	0,85			
234	NTA22602-L2		15/09/16	16/12/17	15 months		23/01/19		2,90	0,91			
235	NTA21102-L2		15/09/16	16/12/17	15 months		23/01/19		2,99	0,93			
236	HCC4-1-L1-5		HI2016				24/01/19		2,45	0,76		Very Low	
237	HCC4-1-L1-3		HI2016				24/01/19		2,48	0,77		Very Low	
238	HCC4-1-L1-1		HI2016				24/01/19		2,43	0,76		Very Low	
239	HCC4-2-L1-1		HI2016				24/01/19		2,45	0,77		Very Low	
240	HCC4-2-L1-2		HI2016				24/01/19		2,44	0,69		Very Low	
241	HCC4-1-L1-6		HI2016				24/01/19		2,48	0,77		Very Low	
242	NT142102-L2		15/09/16	16/12/17	15 months		24/01/19		3,16	0,99			

Next Steps

- Complete v_B measurements,
- Complete the scanning $\sim 27 \text{ m}^2$,
- Complete the calibration with Xe ions,
- Analysis of December 2018 calibration stacks,
- ...

Back-up slide

from November to February:

→ NTDs etched: 28,5 m²

(thickness measured on 8 points for each foil 2 ×) !!

→ NTDs scanned: ~ 1,8 m²