



WP PWIE SP B.2, Kick-off meeting CEA activities in 2023 on WEST samples

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The CEA logo is the word "cea" in a white, lowercase, sans-serif font, centered on a red square background. A thin green horizontal line is positioned below the text.

cea



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SP B.2 Material migration in toroidal devices

Deliverable D001: *erosion and deposition patterns after WEST C5 campaign (3pm) on:*

- *Marker PFUs*
- *ITER-like PFUs*

Full marker tiles analyses (MPG)



		top surface				gaps		
		C3 marker (2021)	C4 marker (2021)	C4 only standard tile	C5 marker	C3 marker	C4 marker	C5 Marker
IPP MPG	SEM/FIB/EDS	done	done	On going (3)	On going (1)	done	done	Pending (2a)
	Confocal microscopy	done	done	On going (3)	On going (1)	Pending (2b)	Pending (2b)	Pending (2b)
	RBS/NRA	done	done	Pending (3)	On going (1)	Pending (2b)	Pending (2b)	Pending (2b)

(1) C5 marker tiles (surface):

- a) Evaluate the IBA data from the C5-marker tile **(must be finished before FEC, Oct 2023)**
- b) Evaluate the thickness and partial delamination of the deposit to
 - i) elucidate the development of deposit thickness with campaigns
 - ii) assess the amount of the deposit already mobilized/lost (also input for SP B.5)

Plans for 2023

(2) Gaps (C3, C4, C5 tiles):


- a) Some data of thickness of deposit in gaps for C3 and C4 exist (FIB cross-sections). Data for C5 should be obtained
- b) IBA and CLSM on gap-side not made yet

(3) C4 only standard tile: Get info of the thickness of the deposits for only C4 exposed tiles to compare to C1-C4 tiles.


- a) Surface: data should be enough on central line (poloidal variation)
- b) Gaps: no data yet. Should be obtained (see above)

Core samples (VTT) and their analyses (all labs)

- Coring (VTT)

- Completed for C3, C4 and C5 marker tiles 

- Samples analyses

- Completed for C3 and C4 marker tiles 

- Proceed with C5 analyses (samples on their way, see Antti's email from March 06th, 2023)

Plans for 2023

Dear colleagues,

The first batch of samples drilled from the C5 marker tiles is now ready and handed over to our reception to take care of their sending via the courier service

- C5-33iA, C5-33iP, C5-21oL → UT (and then further on to JSI)
- C5-33iC, C5-33iL, C5-21oH → VR (and then further on to IPPLM)
- C5-33iF, C5-33iI, C5-33iO, C5-21oA, C5-21oI, C5-21oM → IAP
- C5-33iG, C5-21oD → RBI
- C5-33iH, C5-33iN, C5-21oC → JSI (and then further on to UT)
- C5-33iJ, C5-21oF, C5-21oK → IPPLM (and then further on to VR)

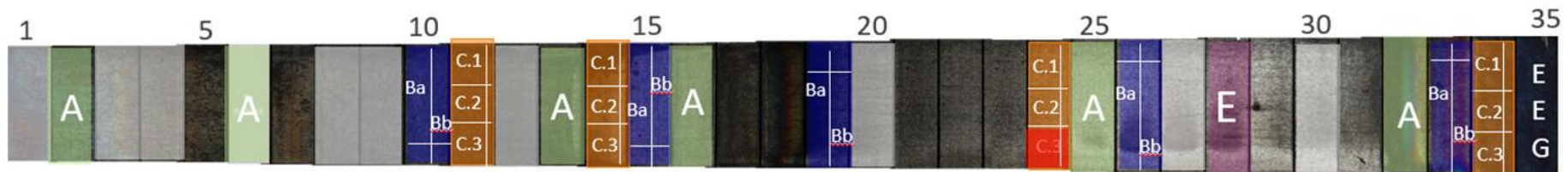
The samples for IST and NCSR D will be delivered once the SIMS measurements have been performed, presently estimated to mid-May.



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- *ITER-like PFUs*



- Analysis plan and samples distribution of ITER-like PFU
 - Identification of 5 batches (A, B, C, D, E) ✓
 - Technical discussion with labs involved in each batch ✓
- Samples analyses
 - First samples (batch E) sent to NCSR ✓
 - Start the analysis sequence for each batch

Meeting scheduled
April, 12th
(see Elodie Bernard's email)

Plans for 2023