

CU activities in 2022: LIBS experiments of JET samples at VTT/FZJ – plans and capabilities

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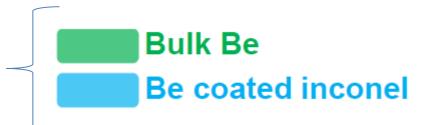


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Typical JET2 materials for post-mortem analysis



At VTT → Be containing samples



At CU → rest of samples



Bulk W

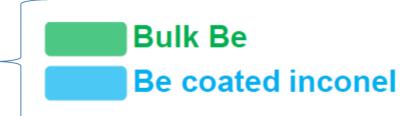
W – coated CFC (If not loaded with T)

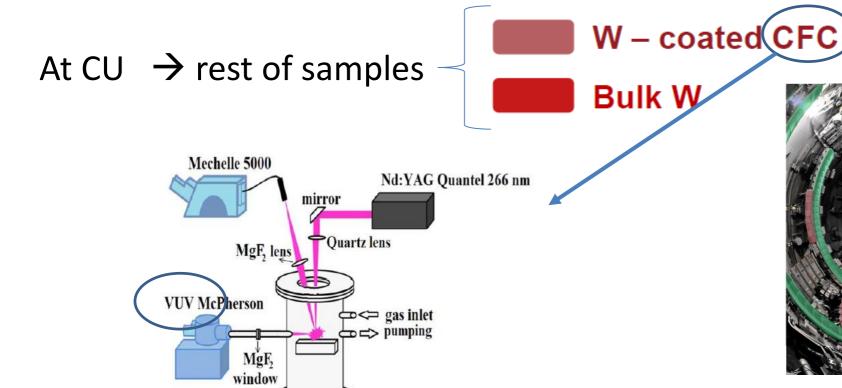


Typical JET2 materials for post-mortem analysis



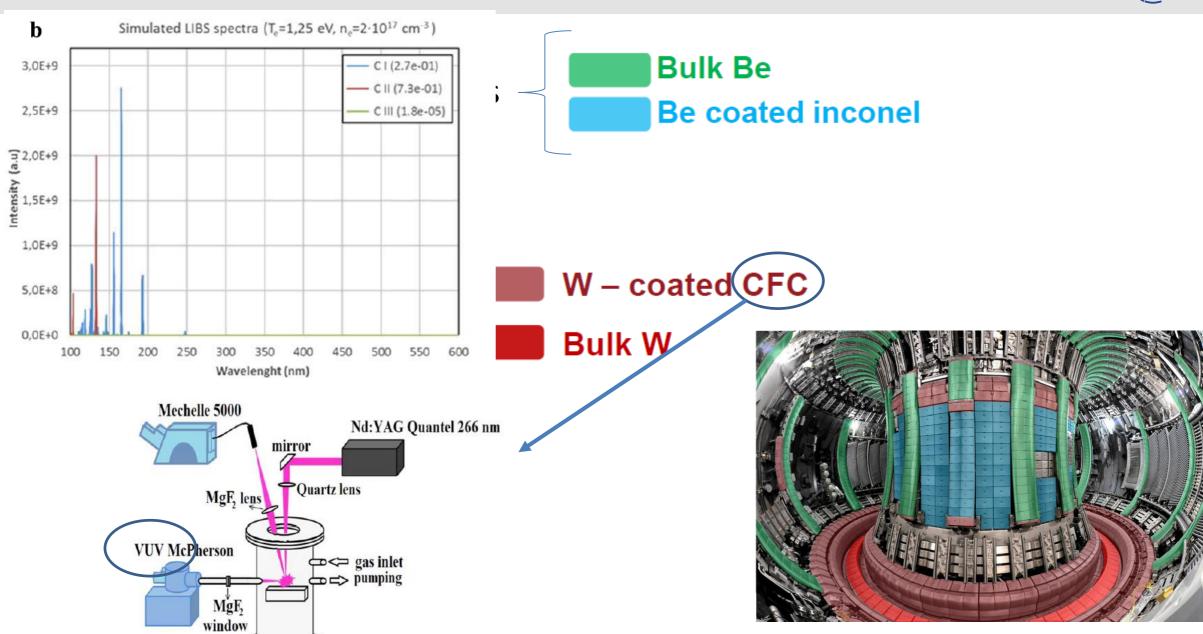






Typical JET2 materials for post-mortem analysis

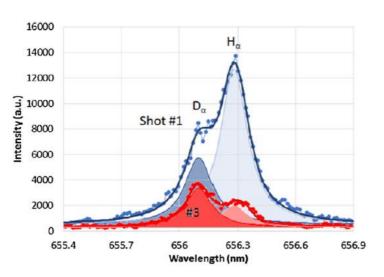


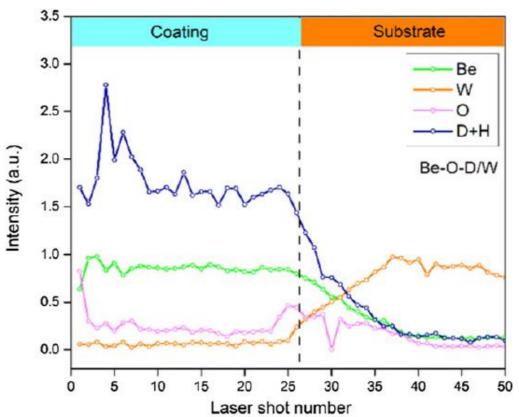


Analysis capabilities



- Depth profiling
- Quantification by CF-LIBS
- Fuel retention





Atomic percentages for Be, O, C, H, and D.

Sample	Be%	O%			C%			Н%	D%		
	LIBS	LIBS	TOF-ERDA	IBA	LIBS	TOF-ERDA	IBA	LIBS	LIBS	TOF-ERDA	IBA
1	52.1	7.6	4.0	12.0	5.0	8.0	11.0	8.4	26.9	44.0	38.0
2	54.0	8.0	3.1	0.0	_	0.3	_	13.6	24.4	26.0	24.6
3	60.9	5.5	0.9	_	_	0.1	_	14.6	19.0	20.0	19.0
4	55.4	8.2	2.8	7.5	1.1	6.1	5.0	8.2	27.1	23.0	4.5

Plans 2022



- VTT campaign this spring (other samples)
- More visits depending on availability
- Measure non-Be samples at CU depending on available samples