

Materials List for:

# U<sub>2</sub>O<sub>5</sub> Film Preparation Via UO<sub>2</sub> Deposition by Direct Current Sputtering and Successive Oxidation and Reduction with Atomic Oxygen and Atomic Hydrogen

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## Materials

Name	Company	Catalog Number	Comments
1ary dry scroll vacuum pump	Agilent	SH-100	All chambers except B1
1ary pump	EDWARDS	nXDS10i 100/240V	B1 chamber
Acetone			
Acquisition programme	Developed in-house		
Analyser	Specs	Phoibos 150 hemispherical	A4 chamber
Argon	BASI		6N
Atomic source	GenII plasma source	Tectra	B3 chamber
Au foil	Goodfellow		
CasaXPS programme	CasaXPS		
Gauge 1ary vacuum	PFEIFFER	TPR 280 (2011/10)	All chambers
Gauge 2ary vacuum	VACOM	ATMION ATS40C	All chambers
Hydrogen gas	BASI		6N
Ion gun source	Specs	IG10/35	B1 chamber
Linear transfer programme	Specs		Program delivered with the station
Origin programme	Origin	OriginPro 8.1SRO	
Oxygen gas			6N
Sampler e-beam heater power supply	Specs	SH100	B1 chamber
Sampler resistance heater	Made in-house	power supply + Eurotherm	B3 chamber
Sputtering programme			Developed in-house
Stainless steal or Molybdenum substrate	in house		
Ta wire	Goodfellow		
turbo pump	PFEIFFER	TC 400	All chambers
Uranium target	in house	in house	Natural uranium target
Vacuum gauge controller	VACOM	MVC-3	All chambers
X-ray source	Specs	XRC-1000 MF	Equipped with a monochromator