

## PSI 2 Solar System

Chamber parameters		Operational parameters		Optional equipment	
main chamber inner size D x H [m]	0.80 x 0.49	temperature range [K] stability [K]	233 – 323 +/- 0.1 2 stacked cold plates	temperature control	LAUDA Proline RP 1290 C temperature range 183 – 473 K
usable inner size L x W x H [m]	0.46 x 0.26 x 0.15 2 stacked cold plates	pressure [Pa]	$5 \times 10^{-5}$	temperature sensors	4 x PT100 RTD
irradiation windows material L x W x t [m]	top lid Herasil window 0.45 x 0.26 x 0.03	pumping units	rotary vane pump Duo35A + TMU261P	pressure sensors	TPG 262 Full Range Gauge
D x H [m]	lateral inspection windows 0.17 x 0.01 0.14 x 0.01	irradiation source	1000 W, 2000 W polychromatic metal halogenide  8 x D200 inserted deuterium	leak test	Leybold Heraeus Ultratest M2 pressure range $10^1 - 10^{-4}$ Pa; Helium
optional interface ports D [m]	CF-F: 5 x DN40 1 x DN63 2 x DN100 1 x DN160			spectral analysis	Bentham DMC150 measurement range 200-600 nm; smallest measuring step 0.5 nm
special features	2 windows 1 x DN63 1 x DN160			gas	Argon, Nitrogen, Helium, customised gas mixtures
electrical connectors interfaces	16 channel high speed DAQ 360 ksamples/s				

**experiments performed:** EURECA ERA, EXPOSE-E, -R, -R2, BIOPAN MARSTOX 1, 2 preflight tests, mission ground reference tests