Principle

- Laser Pulse Induced Breakdown (LPIB) of Molecular Oxygen
- E = 5.5 eV [corresponding to ~ 7-8 km/s]
- Flux = $1x10^{14}$ - $1x10^{16}$ O-atoms cm-2 s-1
- Vacuum : 10^{-6} mbar
- Purity : the oxygen atoms are predominantly neutral and in their 3P ground state.
- The O^{+} ion concentration is below 10ppm.
- Diagnostics : C-QCM + Kapton (known erosion rates)

- Typical fluence : 10^{20}-10^{21} O-atoms cm^2, corresponding to 1day - 1 week of test

- Possibility to attach a Quadrupole MS to Facility

- Typical effects evaluated are mass loss, change in thermo-optical properties, surface morphology / roughness

- Sample holder 140x140 mm (typical 19 samples 20x20mm)