Contamination of space systems can lead to a real degradation of their performance (e.g. loss of reflection from mirrors, loss of transmission from lenses, increased scattering on the optical path...). It is therefore important to be able to detect the presence of contamination in these space systems.

There are two main types of contamination: particulate contamination and molecular contamination. Particle contamination corresponds to a solid substance, the size of particles generally ranges from ten nanometers to millimeters (e.g. dust during assembly, integration and storage, human sources, particles produced during spacecraft propulsion...). Molecular contamination is defined as any contaminant with no observable dimension. Its main sources are the products degassed by organic materials coming