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EDUCATION:

- **2000: Ms in Science** on Physics by Alfonso X 'El Sabio' University, Madrid.
- **2002: D.E.A** in Inverse stimulated Raman techniques applied on the study of diatomic molecules with atmospheric interest. Complutense Universitu of Madrid and Matter Structure Institute, CSIC.

METNET RELATED EXPERIENCE

From 2001, the work carried out **at INTA** has focused on:

Optical wireless communication links for intra-spacecraft communications (OWLS). Investigation about the radiation effects on optoelectronic devices for space use. Development of a space radiation dosimeter-spectrometer based on optoelectronic devices. Exploitation and orbital analysis of in-flight radiation spectra. Multiplexation studies in wavelength for intra-spacecraft diffuse wireless communications. Interferential filter studies with diffuse light to be applied on optical communications and spectrometers.

He has participated in 11 space related projects and has authored and co-authored several scientific articles in peer reviewed magazines about radiation effects on optoelectronic components for space missions.

METNET PROJECT CONTRIBUTION:

Responsible of the Sun Irradiance Sensor (SIS) based on interferencial filters.

Tasks:

- Measurement techniques with the interferencial filters.
- Studies for the diffuse light contribution: particularly understanding and subtracting the effects of using not collimated beams.
- Development of a strategy and a specific characterization system for the SIS, focused on the optical characterization of diffuse and direct light for different incident angles, in the whole range of specified MMPM temperatures. This accurate calibration is necessary to extract, with the required resolution, the direct and diffuse light percentage in every optical channel of the SIS. These data will provide information about Mars atmosphere. In addition, they will also help to locate the exact landing point of the MNL by means of the detection of Phobos eclipses.