CONVOCATORIA DE PROCESO SELECTIVO PARA INGRESO, POR EL SISTEMA GENERAL DE ACCESO LIBRE, EN LA ESCALA DE CIENTÍFICOS SUPERIORES DE LA DEFENSA, RESOLUCIÓN 400/38449/2021, DE 16 DE DICIEMBRE (BOE nº 312 de 29.12.2021). TRIBUNAL CALIFICADOR NUMERO 1.

Especialidad "Ingeniería Óptica para Instrumentación Espacial"

TRADUCCION DIRECTA

MIRI is the mid-infrared instrument for the James Webb Space Telescope and provides imaging, coronagraphy and integral field spectroscopy over the 5-28 micron wavelength range. MIRI is one of four instruments being built for JWST. It was developed as a partnership between Europe and the USA - the main partners were ESA, a consortium of nationally funded European institutes, the Jet Propulsion Laboratory (JPL) and NASA's Goddard Space Flight Center (GSFC).

MIRI has capabilities needed for the whole range of JWST science, covering every phase of cosmic history from the high-redshift Universe through the formation of planetary systems to our own Solar System.

The science goals of JWST require a versatile mid-infrared instrument covering the 5-28.5 µm wavelength range with a wide field of view for imaging through broad and narrow band filters, low resolution spectroscopy from 5-10 µm, moderate resolution spectroscopy with R ~ 3000, and high dynamic range coronography. MIRI is designed to provide all of these functions in a single instrument.

The MIRI *imaging mode* has a plate scale of 0.11 arcsec/pixel, fully sampling the JWST point spread function at 5.6 µm, a field of view of 1.7 by 1.3 arcmin and 10 filters. The MIRI *coronagraphy mode* has four coronagraphs operating at wavelengths selected for the optimal study of exoplanets. The MIRI *medium resolution spectroscopy mode* is an integral field spectrograph with R ~ 3000, covering 4.6-28.6 µm. This wavelength range has been divided into four channels with concentric fields of view on the sky, and each channel has three sub-bands with dedicated gratings, so that a complete spectrum of a 3.5 arcsecond × 3.5 arcsecond field of view can be obtained in three exposures. For low-resolution spectroscopy, the resolution is R ~ 100, with a five arcsecond slit.