

Abstract The HERSCHEL (helium resonant scattering in the corona and heliosphere) experiment is a rocket mission that was successfully launched last September from White Sands Missile Range, New Mexico, USA. HERSCHEL was conceived to investigate the solar corona in the extreme UV (EUV) and in the visible broadband polarized brightness and provided, for the first time, a global map of helium in the solar environment. The HERSCHEL payload consisted of a telescope, HERSCHEL EUV Imaging Telescope (HEIT), and two coronagraphs, HECOR (helium coronagraph) and SCORE (sounding coronagraph experiment). The SCORE instrument was designed and developed mainly by Italian research institutes and it is an imaging coronagraph to observe the solar corona from 1.4 to 4 solar radii. SCORE has two detectors for the EUV lines at 121.6 nm (HI) and 30.4 nm (HeII) and the visible broadband polarized brightness. The SCORE UV detector is an intensified CCD with a microchannel plate coupled to a CCD through a fiber-optic bundle. The SCORE visible light detector is a frame-transfer CCD coupled to a polarimeter based on a liquid crystal variable retarder plate. The SCORE coronagraph is described together with the performances of the cameras for imaging the solar corona.

Keywords UV/vis detectors · Imaging · Coronagraph · Solar corona · CCD cameras