

Level 2 Photo Documentation

Level 2 photo documentation of the INterstellar aerogel tiles and associated foils consisted of imaging each tile of aerogel at 20x magnification using the Leica MZ16A Stereo Microscope system and the DFC320 3.3 megapixel digital camera. These items are part of the Primary Scanning System (PSS) that was specifically developed for this purpose.

Aerogel - The magnification of 20x over the given area of a standard Stardust cometary tile (*i.e.*, 2 x 4 cm) required that 48 images be taken to cover the complete tile; eight columns by six rows with each image consisting of 2088 x 1550 pixels. After acquiring the images for a given cell or tile, the individual images were electronically joined to produce a mosaic image of each [tile](#) in the Cometary Collector or Tray.

Al Foils - The Aluminum (Al) foils associated with each cell were also imaged using the above mentioned Leica microscope system, with the vertical foils (west or east) utilizing a magnification of 60x and normally requiring 20 to 24 images to completely cover the vertical foil. The horizontal foils, on the other hand, were imaged at 50x requiring between 30 and 34 images to completely document one of the foils on the 4 cm long side of a given (north or south) cell. During imaging of the Al foils, polarizing lenses were utilized to reduce the glare of the light being reflected in to the camera path. Individual images for each foils were also electronically joined together to generate a mosaic image of each [foils](#).