Final Report

During the period of this Cooperative Agreement, MIT developed advanced methods for applying silicon microstructures for the precision assembly of foil x-ray optics in support of the Constellation-X Spectroscopy X-ray Telescope (SXT) development effort at Goddard Space Flight Center (GSFC). MIT developed improved methods for fabricating and characterizing the precision silicon micro-combs. MIT also developed and characterized assembly tools and several types of metrology tools in order to characterize and reduce the errors associated with precision assembly of foil optics. Results of this effort were published and presented to the scientific community and the GSFC SXT team (see below).

Publications:


Presentations:


“The importance of nanotechnology and nanometrology for space


“Advanced x-ray optics for x-ray astronomy,” M.L. Schattenburg, Space Research Institute (IKI) of Russian Academy of Sciences, Moscow, Russia, September 11, 2002 (invited). CANCELLED?


Master’s Thesis


Patents

None