

LSC Six-Month Progress

LIGO-M020379-00-M

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Report Date August 15, 2002

Progress report Feb 2002 – Aug 2002

- 8-a The first surface maps by means of PMWLI were obtained. We suggested and experimentally tested the interferometer for in situ measurement of ETM optical thickness. The interferometer may be implemented on LIGO IFO to monitor contamination during LIGO I runs.
- 8-b We have measured thermal lensing coefficients of TGG by two different techniques. Investigation of isolation ratio of different Faraday isolator designs at the unlocked IFO has been continued.
- 8-c Vacuum equipment was upgraded up to the level, which is enough to neglect thermal conductivity of residual gas. We modeled bulk (by Nd laser) and surface (by CO₂ laser) heat deposition in LIGO II Core Optics.