TEMPERATURE MEASUREMENTS USING UV-INDUCED VIBRATIONAL HYDROGEN RAMAN BANDSHAPE SPECTROSCOPY

By

David Matthew Mosbacher

Dissertation
Submitted to the Faculty of the
Graduate School of Vanderbilt University
in partial fulfillment of the requirements
for the degree of

DOCTOR OF PHILOSOPHY

In

Mechanical Engineering

December, 2004

Nashville, Tennessee

Approved:

Professor Robert W. Pitz

Professor Joseph A. Wehrmeyer

Professor Richard Haglund

Professor Gregg Walker

Professor Mark Stremler