

11/3/22

Engineering

Aerospace Engineering Department

Lee. H. Sentman Papers. 1960-2005

Box 1:

Publications, in chronological order:

- Technical Report: Free Molecule Flow Theory and its Application to the Determination of Aerodynamic Forces (LMSC-448514). Lee H. Sentman. Oct 1961.
- On the kinetic equations for a dilute, short range gas (AAE 69-5). Tom J. Forester and Lee H. Sentman. June 1969.
- A model for setting minimums for alternate airports. ROUGH DRAFT. Lee H. Sentman. Feb 1971.
- On the role of tangential velocity changes in the scattering of a molecular beam from a solid surface (AAE 71-3). Clifford C. Chrisman and Lee H. Sentman. March 1971.
- An efficient rotational nonequilibrium model of a CW chemical laser (AAE TR 79-5). Lee H. Sentman and Warren Brandkamp. July 1979.
- User's Guide for Programs MNORO and AFOPTMNORO (AAE TR 79-7). DRAFT. L. H. Sentman. Oct. 1979.
- User's Guide for Programs MNORO (AAE TR 82-). L. H. Sentman. 1982. Includes notes by Sentman.
- User's Guide for Program MNORO3. DRAFT. L. H. Sentman and P. Schmidt (AAE TR 82-). 1982.
- A theoretical and experimental study of CW HF chemical laser performance (AAE 81-8). L. H. Sentman, W. O. Mosebach, P. Renzoni. Dec 1981.
- Nonlinear interactions between the pumping kinetics, fluid dynamics and optical resonator of CW fluid flow lasers (83-5). L. H. Sentman and M. H. Nayfeh. Feb 1, 1982 – Jan 31, 1983.
- MNORO3: an efficient rotational nonequilibrium CW HF chemical laser model (AAE TR 83-1). Lee H. Sentman and Paul Smith. January 1983. Includes notes by Sentman.
- User's Guide for Program MNORO3 (AAE TR 83-4). L. H. Sentman and P. Schmidt. March 1983.
- Effects of the HF Rate Package and the Optical Resonator on the CW HF Chemical Laser Performance (AAE TR 83-6). L. H. Sentman, P. F. Schmidt, and G. M. Marinos. June 1983.
- The effects of cavity losses on the performance of a subsonic CW HF chemical laser (AAE TR 83-7). L. H. Sentman, P. Renzoni and S. Townsend. June 1983.
- Time-Dependent Oscillations in a CW HF chemical laser unstable resonator (AAE TR 84-2). L. H. Sentman, S. Townsend, G. Tsioulos and J. Bichanich. May 1984.
- An Experimental Study of Fabry-Perot and Stable Resonator CW HF Chemical Laser Performance (AAE TR 85-3). L. H. Sentman, G. Tsioulos, J. Bichanic and D. Carroll. March 1985.

Temporal Variations in a CW HF MOPA (AAE TR 86-2). L. H. Sentman. April 1985 - March 1986.

Temporal Variations in a CW HF MOPA (AAE 88-5). L. H. Sentman. April 1985 - Sept 1987.

Simulation of Fabry-Perot and stable resonator cw HF chemical laser performance (AAE 85-6). L. H. Sentman, J. D. Bichanich, D. Carroll, V. Coverstone, P. Theodoropoulos. Sept, 1985

Mass Flow Calibration of the Helios CLI and CLII Laser Control Consoles (AAE TR 86-4). L H Sentman; P Theodoropoulos; A Gumus. Aug 1986

An Experimental Study of CW HF Chemical Laser Amplifier Performance and Zero Power Gain (AAE TR 87-6). L H Sentman; P Theodoropoulos; R Waldo; T Nguyen; R Snipes. Aug 1987. <http://www.dtic.mil/cgi-bin/GetTRDoc?AD=ADA185241&Location=U2&doc=GetTRDoc.pdf>

Computer Simulation of CW HF Chemical Laser Unstable Resonator Performance (AAE TR 87-5). L. H. Sentman and J. O. Gilmore. Aug 1987.

Performance scaling of oscillating amplifiers (AAE TR 88-4). L. H. Sentman. April 1988.

Evaluation of oscillating amplifier scaling relations (AAEE TR88-14). L. H. Sentman. Sept. 1988.

A CAD Program for the Calculation of Free Molecule Aerodynamic and Solar Radiation Forces and Moments: User's Manual (AAEE 88-3). C. A. Sedlund and L. H. Sentman. July 1988

A CAD Program for the Calculation of Free Molecule Aerodynamic and Solar Radiation Forces and Moments: Final Report (AAE 88-6). C. A. Sedlund and L. H. Sentman. July 1988

An experimental study of supersonic CW HF chemical laser zero power gain (AAE TR 89-6). L. H. Sentman, T. X. Nguyen, P. T. Theodoropoulos, R. E. Waldo, D. L. Carroll. Aug 1999.

On the performance characteristics of multiple pass HF chemical laser master oscillator/power amplifiers (AAE TR 91-06). R. E. Waldo, L. H. Sentman, P. T. Therodoropoulos, D. L. Carroll. Aug 1991.

Experimental and theoretical study of CW HF chemical laser residual fundamental gain (AAE TR 92-09). P. T. Theodoropoulos, L. H. Sentman, D. L. Carroll, R. E. Waldo, S. J. Gordon, J. W. Otto. May, 1992.

Experimental and theoretical study of CW HF chemical laser residual fundamental gain (AAE TR 92-09). P. T. Theodoropoulos, L. H. Sentman, D. L. Carroll, R. E. Waldo, S. J. Gordon, J. W. Otto. May 1992.

A study of effect of line selection on HF oscillator performance (AAE TR 93-10). L. H. Sentman, S. J. Gordon, J. W. Otto, D. L. Carroll. July 1993.

Studies of CW HF chemical laser overtone performance (AAE TR 93-11). L. H. Sentman, J. W. Otto, S. J. Gordon and D. L. Carroll. July 1993.

Mass Flow Calibration of the Helios CLI, CLIIA, and CLIIB Laser Control Pedestals (AAE TR 94-04). L. H. Sentman, J. W. Otto and S. J. Gordon. June 1994.

Effect of Mixing on CW HF Overtone Efficiency (AAE TR 96-07). L. H. Sentman, D. S. Jenkins, J. W. Otto, S. J. Gordon. July 1996.

A Study of Line Selection in CW HF Lasers (AAE TR 97-02). S. J. Gordon, L. H. Sentman, D. S. Jenkins, A. J. Eyre. March 1997.
Studies of CW HF chemical laser performance (AAE TR 99-01). L. H. Sentman, A. J. Eyre, J. T. Cassibry and B. P. Wootton. Jan 1999.
Studies of CW HF chemical laser performance (AAE TR 99-01). L. H. Sentman, A. J. Eyre, J. T. Cassibry and B. P. Wootton. Jan 1999.

Box 2:

An experimental study of possible mixing enhancement and zero power gain of the hysim nozzle (AAE TR 99-13). L. H. Sentman, B. P. Wootton, A. C. Duus, J. T. Cassibry and A. J. Eyre. July 1999.
BLAZE II: a chemical laser simulation computer program – user notes. L. H. Sentman, Experimental study of the effect of the probe beam mode structure on the measurement of zero power gain in a CW HF laser (AAE TR 01-08). L. H. Sentman, A. C. Duus, R. G. Wright, J. F. Padilla, G. L. Detweiler. April, 2001.
Experimental study of the effect of the probe beam mode structure on the measurement of zero power gain in a CW HF laser (AAE TR 01-08). L. H. Sentman, A. C. Duus, R. G. Wright, J. F. Padilla, G. L. Detweiler. April, 2001.
The Possibility of Hot Reaction Enhancement of CW HF Laser Performance (AAE TR 02-02). L. H. Sentman, G. L. Detweiler. March 2002.
Experimental Study of Time Dependant Oscillations Occurring in Supersonic CW HF Chemical Laser Unstable Resonators (AAE TR 04-01). L. H. Sentman and S. J. Mayer. May 2004.
Numerical Study of the Time-Dependant Oscillations in a CW HF Chemical Laser Confocal Unstable Resonator (AE TR 04-02). L. H. Sentman and A. D. Palla. May 2004.

Publications on CD-ROM:

Experimental Study of Time-Dependent Oscillations in a cw HF Chemical Laser Confocal Unstable Resonator. S. Joseph Mayer, Andrew D. Palla, Lee H. Sentman, David L. Carroll. May 2005.
Simulation of Time-Dependent Oscillations in a cw HF Chemical Laser Confocal Unstable Resonator. Andrew D. Palla, Lee H. Sentman, David L. Carroll. May 2005. Contains PowerPoint slides for paper.
The Possibility of Hot Reaction Enhancement of CW HF Laser Performance. G. L. Detweiler, L. H. Sentman, D. L. Carroll. May 2005.
Doctoral Thesis, 1965. "Some Aspects of the Problem of Solid Surfaces in Kinetic Theory." Lee Hanley Sentman. Contains notes by Sentman.
Proposal to Study the Conditions That Must Exist for a Tornado to Form. Application to the National Science Foundation by L. H. Sentman. 1971. Contains notes by Sentman.

Box 3:

Correspondence 1960-1965

Prominent correspondents includes Lockheed Missiles & Space Company. Contains notes by Sentman.

American Institute of Aeronautics and Astronautics Associate Fellow Application 1981

College of Engineering Administrative Committee Correspondence, Minutes and Agendas

Dec 1984-July 1985

Engineering College Policy and Development Committee Correspondence, Minutes and Agendas Dec 1984 - Feb 1985

March 1985

April - May 1985

June - July 1985

Summary Report 1984-85

Report of the Subcommittee on Admissions 1984-85