

INSTITUTION: The University of Michigan

NAME: Y. Y. Lau

ACADEMIC RANK: Professor of Nuclear Engineering & Radiological Sciences

DATE OF INITIAL APPOINTMENT: 1992

DEGREES:

B. S. (E. E.) Massachusetts Institute of Technology, 1968

M. S. (E. E.) Massachusetts Institute of Technology, 1970

Ph. D. (E. E.) Massachusetts Institute of Technology, 1973

FIELD OF SPECIALIZATION AND AREAS OF INTEREST:

Theory of plasmas: high-power microwaves, noise, intermodulation, ultra-intense laser plasma interaction, wire Z-pinch physics, heating phenomenology, nano-diodes.

FIVE RECENT SIGNIFICANT RESEARCH PUBLICATIONS:

“Microwave Absorption on a Thin Film,” H. Bosman, Y. Y. Lau, and R. M. Gilgenbach, *Appl. Phys. Lett.*, **82**, 1353 (2003).

“Low-noise microwave magnetrons by azimuthally varying axial magnetic field,” V. B. Neculaes, R. M. Gilgenbach, and Y. Y. Lau, *Appl. Phys. Lett.* **83**, 1938 (2003).

“Ohmic heating of particulates in a lossless medium,” W. Tang, H. Bosman, Y. Y. Lau, and R. M. Gilgenbach, *J. Appl. Phys.* **97**, 114915 (2005).

“Scaling laws for dielectric window breakdown in vacuum and collisional regimes,” Y. Y. Lau, J. P. Verboncoeur, and H. C. Kim, *Appl. Phys. Lett.* **89**, 261501 (2006).

“Role of ions in a crossed-field diode,” Y. Y. Lau, J. W. Luginsland, K. L. Cartwright, and M. D. Haworth,” *Phys. Rev. Lett.* **98**, 015002 (2007).

RESPONSIBILITY IN THE PROGRAM: 80%

NATURE OF CONSULTING, INDUSTRIAL EMPLOYMENT OR OTHER NONUNIVERSITY ACTIVITY IN THE PAST TWO-THREE YEARS:

Faculty Appointee, Naval Research Laboratory

IPA, Air Force Research Laboratory, Kirtland AFB

Visiting Scientist, Sandia National Laboratories

Associate Editor, *Physics of Plasmas*, 1994-2005.

Member, IEEE Plasma Science and Applications Executive Committee, 2003.

Chair, APS-DPP Committee on Excellence in Plasma Research Award, 2003.

Member, APS-DPP Program Committee, 2007.

HONORS AND AWARDS:

1989 Sigma Xi Society Applied Science Award

1999 IEEE Plasma Science and Application Award

IEEE Fellow, and American Physical Society Fellow