

CURRICULUM VITAE (cumulative for 1987-2012)

Arto Veikko Nurmikko

Professor of Engineering and Physics
School of Engineering, Brown University
Brown Institute for Brain Science
Providence, RI 01912

Education:

B.S., Electrical Engineering, University of California, Berkeley
M.S., Electrical Engineering, University of California, Berkeley
Ph.D., Electrical Engineering, University of California, Berkeley

Professional Experience

- Postdoctoral Fellow, Physics Department, Hebrew University of Jerusalem,
- Research Associate, Electrical Engineering Department, M.I.T., 1972-1975.
- Assistant Professor of Engineering, Division of Engineering, Brown University,
- Associate Professor Engineering, Division of Engineering, Brown University,
- Professor of Engineering, Brown University, 1983 to present.
- Professor of Engineering and Physics, 1985 to present
- Director, Center for Advanced Materials Research, 1989 to 2001
- L. Herbert Ballou University Professor of Engineering and Physics, 1994-
- Co-Director for the Center for Biomedical Engineering, 2007 - 2009

Publications of Refereed Journal Articles: (since 1982)

45. "Picosecond Kinetics of the Donor Bound Exciton in (Cd,Mn)Se", J.H. Harris and A.V. Nurmikko, Phys. Rev. B28, 1181 (1983)
46. "Formation of the Bound Magnetic Polaron in (Cd,Mn)Se", J.H. Harris and A.V. Nurmikko, Phys. Rev. Lett. 51, 1472 (1983)
47. "Photoluminescence in the Semimagnetic (Zn,Mn)Te", M. Gal, Y. Hefetz, J. Ajo, and A.V. Nurmikko, Phys. Rev. B28, 4500 (1983)
48. "Subnanosecond Luminescence Spectroscopy of (Cd,Mn)Se under High Intensity Optical Excitation", C.A. Huber and A.V. Nurmikko, Solid State Comm. 48, 675 (1983)
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53. "Bound Exciton Formation and Exciton Localization in Semimagnetic Semiconductors", A.V. Nurmikko, J. Luminescence 30, 355 (1985)
54. "Interface Localization of Excitons in CdTe/(Cd,Mn)Te Multiple Quantum Wells", X.-C. Zhang, S.-K. Chang, A.V. Nurmikko, L.A. Kolodziejewski, R.L. Gunshor, and S. Datta, Phys. Rev. B31, 4056 (1985)
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58. "Excitons in CdTe/CdMnTe Multiquantum Wells", A.V. Nurmikko, X.-C. Zhang, S.-K. Chang, L.A. Kolodziejski, R.L. Gunshor, and S. Datta, J. Luminescence 34, 89 (1985)
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362. “Implants and Decoding for Intracortical Brain Computer Interfaces”, Mark L. Homer, Arto V. Nurmikko, John P. Donoghue, Leigh R. Hochberg, *Annual Reviews of Biomedical Engineering* (in press)

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364. “A Multifunction Coaxial Write-Read Probe for Optogenetic Studies in Non-Human Primates”, I. Ozden, J. Wang, Y. Lu, T. May, Joonhee Lee, A. Nurmikko, P. Kalanithi, W. Goo, D. O’Shea, I. Diester, K. Deisseroth, K. Shenoy (submitted)

Invited Lectures (over 500)

Some Recent Patents :

- 6,233,267, “Blue/ultraviolet/green vertical cavity surface emitting laser employing lateral edge overgrowth (LEO) technique”, Nurmikko; Arto V (Providence, RI); Song; Yoon-Kyu (Seoul, KR)
- 6,320,206, “Light emitting devices having wafer bonded aluminum gallium indium nitride structures and mirror stacks, Coman; Carrie Carter (San Jose, CA); Kern; R. Scott (San Jose, CA); Kish, Jr.; Fred A. (San Jose, CA); Krames; Michael R (Mt View, CA); Nurmikko; Arto V. (Providence, RI); Song; Yoon-Kyu (Providence, RI)
- 6,420,199, “Methods for fabricating light emitting devices having aluminum gallium indium nitride structures and mirror stacks”, Coman; Carrie Carter (San Jose, CA); Kern; R. Scott (San Jose, CA); Kish, Jr.; Fred A. (San Jose, CA); Krames; Michael R (Mt View, CA); Nurmikko; Arto V. (Providence, RI); Song; Yoon-Kyu (Providence, RI)
- following three (3) provisional patents were filed: A Magneto-Optoelectronic Switch and Sensor, A Method for Enhancing Optical Detection of Airborne Particles, Application of Arrays of Semiconductor Light Emitting Ultraviolet and Visible Sources for Biological Agent Detection
- 6,822,991, “Light emitting devices including tunnel junctions”, Collins, III; William D. (San Jose, CA); Gardner; Nathan F. (Mountain View, CA); Nurmikko; Arto V. (Providence, RI), Assignee: Lumileds Lighting U.S., LLC (San Jose, CA)
- 7,064,827, “Optical tracking and detection of particles by solid state energy sources”, A Nurmikko (Brown U), R.-K. Chang (Yale University)
- “Scanning Optoacoustic Microscope”, by H. Maris and A. Nurmikko
- 7,280,870 “Optically-connected implants and related systems and methods of use”
- 7,440,479; Magneto-optoelectronic switch and sensor
- 20110036171 - Enhanced ultra-high resolution acoustic microscope
- a patent applied for a colloidal quantum dot red-green-blue semiconductor laser; for a implantable wireless neural interface, and for additional supplements to an existing patent
- “Scanning Optoacoustic Microscope” (the latter with H. Maris)

Ph.D. Graduates from Nurmikko Lab: (44 Ph.D. to date)