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Education

University of Pennsylvania	Ph.D. Physics	1980
National Taiwan University	B.S. Physics	1973

Professional Experience

Professor, Physics	Brooklyn College	2002 - Present
Visiting Chair	Research Center for Quantum Effect Electronics, Tokyo	2001 - 2002
Distinguished Member of Technical Staff	Agere Systems	2001 - 2001
Distinguished Member of Technical Staff	Lucent Technologies Bell Labs	1982 - 2001
Visiting Chair	Tokyo Institute of Technologies, Tokyo	1996 - 1996
Adjunct Professor	University of Pennsylvania	1989 - 1991
Technical Staff (PostDoc)	Bell Laboratories	1980 - 1982

Research Interests

Fabrication, TEM, ion beam characterization, and electronic properties of metal-semiconductor and semiconductor-semiconductor interfaces. Metallization, junction, and defects issues for deep sub-micron silicon devices. Theories on the formation and the electronic transport of Schottky barriers and semiconductor heterojunctions.

Selected Publications

- *Charges and dipoles at semiconductor interfaces,* R. T. Tung, Mat. Res. Soc. Symp. Proc. 719, F12.1 (2002).
- *Electron trapping, storing, and emission in nanocrystalline Si dots by capacitance–voltage and conductance–voltage measurements*, S. Huang, S. Banerjee, R. T. Tung, and S. Oda, J. Appl. Phys. 93, 576 (2003).
- *Pulsed Source MOCVD of high-k dielectric thin films with in-situ monitoring by spectroscopic ellipsometry*, Y. Tsuchiya, M. Endo, M. Kurosawa, R.T.Tung, T. Hattori and S. Oda, Japanese Journal of Applied Physics 42 (4B)1957-1961(2003)
- *Evaluation of quantum confinement energy in nanocrystaline silicon dots from high-frequency conductance measurement*, S. Huang, S. Banerjee, R. T. Tung, and S. Oda, Appl. Phys. Lett (2003).

- *Epitaxial Silicide Formation On Recoil-Implanted Substrate*s, S. Hashimoto, K. Egashira, T. Tanaka, R. Etoh, Y. Hata, and R. T. Tung, J. Appl. Phys. to appear to Jan. 1, 2005.
- *Self-Aligned Silicides*, R. T. Tung, a chapter in *Encyclopedia of Materials: Science and Technology*, Pergamon, Elsevier 2001.
- *Silicide Contacts to Source/Drain Region,* R. T. Tung, a chapter in *Encyclopedia of Materials: Science and Technology*, Pergamon, Elsevier 2001.
- *The Changing Views on the Schottky Barrier*, R. T. Tung, a chapter in *Silicides fundamentals and applications*, ed. L. Miglio and F. d'Heurle, World Scientific (2000).

Patents

- *Heteroepitaxy of multiconstituent material by means of a template layer*, J. M. Gibson, J. M. Poate and R. T. Tung, U. S. Patent 4,477,308, October 16, 1984.
- *Formation of heterostructures by pulsed melting of precursor material*, J. M. Gibson, J. M. Poate and R. T. Tung, U. S. Patent 4,555,301, November 26, 1985.
- *Method of producing a silicide/Si heteroepitaxial structure, and articles produced by the method*, J. C. Hensel, A. F. J. Levi and R. T. Tung, U. S. Patent 4,707,197, November 17, 1987.
- *Semiconductor device comprising a perforated metal silicide layer*, J. M. Gibson, J. C. Hensel, A. F. J. Levi, and R. T. Tung, U. S. Patent 4,901,121, February 13, 1990.
- *Process for device fabrication in which a thin layer of cobalt silicide is formed*, R. T. Tung, U. S. Patent 5,728,625, Mar. 17, 1998