CV of **KONG-THON TSEN**

CURRENT POSITION: Professor
Department of Physics
Arizona State University
Tempe, AZ 85287

EDUCATION:

Ph.D.	Experimental solid state physics (June, 1983)	Purdue University, W. Lafayette, IN 47907
M.S.	Physics (May, 1978)	Purdue University, W. Lafayette, IN 47907
B.S.	Physics (May 1974)	Fu-Jen Catholic University, Taiwan, R.O.C.

HONORS AND MEMBERSHIP:

1. Member of American Physical Society;
2. Member of Optical Society of America;
3. Member of SPIE – The International Society for Optical Engineering
4. Member of Sigma Pi Sigma (National Physics Honor Society);
5. David-Ross Scholarship fellow (from 1978 to 1980);
6. Member of Sigma Xi (American Scientific Research Society);
7. Recipient of Lark-Horovitz prize in physics (Purdue University, April 1983).
8. Member of WHO IS WHO INTERNATIONAL.
9. Consulting Scientist for New York State Office of Science, Technology and Academic Research (NYSTAR), 2002 to present.
10. Outstanding Alumni Award (Fu-Jen University, 2004)
11. Member, editorial board: Superlattices and Microstructures (March, 2006 to Oct. 2007)

PROFESSIONAL CAREER:

July 1997 to present	-	Professor (Arizona State University);
July 1990 June 1997	-	Associate Professor (Arizona State University);
August 1984 June 1990	-	Assistant Professor (Arizona State University);
July 1983 July 1984	-	Research Associate (University of Illinois);
August 1978 June 1983	-	Research Assistant (Purdue University);
August 1976	-	Teaching Assistant (Purdue University).

RESEARCH INTERESTS:

Tsen's research interest focuses on the interaction of light with solid state and biological systems; in particular, on the use of ultrafast laser sources to elucidate novel electron transport phenomena, dynamical properties of lattice vibrations in low-dimensional and nanostructure semiconductors as well as microscopic mechanisms in biological systems such as viruses, bacteria and cells. He has given more than 50 invited talks in the national and international conferences. He has served as the Chair/co-chair of the annual SPIE Photonic West International Symposium on Ultrafast Phenomena in Semiconductors and Nanostructure Materials since 1997. He has more than 170 refereed publications and has edited 4 books in the area of ultrafast phenomena in semiconductors. Books edited: (1) "Ultrafast Phenomena in Semiconductors" published by Springer-Verlag (New York,2001). (2) "Ultrafast Physical Processes in Semiconductors", published by Academic Press as the book Volume #67 in the series – "Semiconductors and Semimetals", edited by R.K. Willardson and E.R. Weber(New York, 2001). (3) "Ultrafast Dynamical Processes in Semiconductors", published as the book Volume #92 in the series – Topics in Applied Physics, by Springer-Verlag (Heidelberg, 2004). (4) "Non-equilibrium Dynamics of Semiconductors and Nanostructures", published by CRC press Inc. (New York, 2005)

Publications: edited Books, edited Proceedings, Book chapters and Journals:

(A) Books edited:

(1) "*Ultrafast Phenomena in Semiconductors*" published by Springer-Verlag (New York, 2001).
(2) "*Ultrafast Physical Processes in Semiconductors*", published by Academic Press as the book Volume #67 in the series – "*Semiconductors and Semimetals*", edited by R.K. Willardson and E.R. Weber (Boston, 2001).
(3) "*Ultrafast Dynamical Processes in Semiconductors*", published as the book Volume #92 in the series – Topics in Applied Physics, by Springer-Verlag (Heidelberg, 2004).
(4) "*Non-equilibrium Dynamics of Semiconductors and Nanostructures*", published by CRC press, Inc. (New York, 2005)

(B) Proceedings edited:

(1) Proc. of Photonic West'98 Int. Sym. on "*Ultrafast Phenomena in Semiconductors II*", published by SPIE (with Harold R. Fetterman); Vol. 3277.
(2) Proc. of Photonic West'99 Int. Sym. on "*Ultrafast Phenomena in Semiconductors III*", published by SPIE; Vol. 3624;
(3) Proc. of Photonic West'00 Int. Sym. on "*Ultrafast Phenomena in Semiconductors IV*", published by SPIE (with Jin-Joo Song); Vol. 3940;
(4) Proc. of Photonic West'01 Int. Sym. on "*Ultrafast Phenomena in Semiconductors V*", published by SPIE (with Hong-Xing Jiang and Jin-Joo Song). Vol. #4280
(5) Proc. of Photonic West'02 Int. Sym. on "*Ultrafast Phenomena in Semiconductors VI*", published by SPIE (with Hong-Xing Jiang and Jin-Joo Song). Vol. 4643.
(6) Proc. of Photonic West'03 Int. Sym. on "*Ultrafast Phenomena in Semiconductors VII*", published by SPIE (with Hong-Xing Jiang and Jin-Joo Song). Vol. 4992.
(7) Proc. of Photonic West'04 Int. Sym. on "*Ultrafast Phenomena in Semiconductors and Nanostructures VIII*", published by SPIE (with Hong-Xing Jiang and Jin-Joo Song), Vol.5352.
(8) Proc. of Photonic West'05 Int. Sym. on "*Ultrafast Phenomena in Semiconductors and Nanostructures IX*", published by SPIE (with Hong-Xing Jiang and Jin-Joo Song), Vol. 5725.
(9) Proc. of Photonic West'06 Int. Sym. on "*Ultrafast Phenomena in Semiconductors and Nanostructures X*", published by SPIE (with Hong-Xing Jiang and Jin-Joo Song), Vol. 6118.
(10) Proc. of Photonic West'07 Int. Sym. on "*Ultrafast Phenomena in Semiconductors and Nanostructures IV*", published by SPIE (with Jin-Joo Song), Vol. 6471.

(C) Book Chapters written:

(1) "Electron velocity overshoot, ballistic electron transport and non-equilibrium phonon dynamics in nanostructure semiconductors", in *Ultrafast Phenomena in Semiconductors*, edited by K.T. Tsen (Springer-Verlag NY, 2001), p. 191-259.
(2) "Ultrafast dynamics in wide bandgap wurtzite GaN", in *Ultrafast Physical processes in semiconductors*, edited by K.T. Tsen (Academic Press, Boston, 2001), p. 109-149.
(3) "Time-resolved Raman studies of wide bandgap wurtzite GaN", in *III-V nitride semiconductors : Optical properties* , edited by O. Manasreh and H.X. Jiang (Taylor & Francis, New York, 2002). P. 85 – 134.
(4) "Time-resolved/transient Raman studies of electric-field-induced transient carrier transport in nanostructure semiconductors", in "*Recent Research Developments in Raman Spetroscopy*", Vol. 1, edited by S.G. Pandalai (Transworld Research Network, Trivandrum, 2002). P. 123 – 160.
(5) "Optical studies of electric-field induced electron and hole transient transports and optical phonon instability in semiconductor nanostructures", in "*Ultrafast Dynamical Processes in Semiconductors*", edited by K.T. Tsen in the series – Topics in Applied Physics, by Springer-Verlag (Heidelberg, 2004), p. 193-258..

(6) "Non-equilibrium carrier dynamics in nitride based semiconductors", in *Non-equilibrium Dynamics of Semiconductors and Nanostructures*", edited by K.T. Tsen, (CRC press Inc. New York, 2005). p. 179-213.

(D) Journal publications:

(1) Two-phonon Raman scattering probe of non-equilibrium, high frequency acoustic phonons: The TA phonon Bottleneck in GaAs. K.T. Tsen, D. Abramsohn and R. Bray. Phys. Rev. B26, 4770-4773 (1982).

(2) Critical evaluation of the light scattering spectrum for Single Particle Excitations in n-GaAs at 300 K. D. Abramsohn, K.T. Tsen and R. Bray. Phys. Rev. B26, 6571-6587 (1982).

(3) Collision-Narrowing of Raman spectrum for Spin-Density Fluctuations of electrons in n-GaAs. K.T. Tsen and R. Bray. Solid State Communications 45, 685-687 (1983).

(4) Raman probe of the large wavevector TA phonon Bottleneck in GaAs. K.T. Tsen, D. Abramsohn and R. Bray, Physica 117B & 118B, 543- 545 (1983).

(5) Electronic Raman Scattering from Carbon Acceptors in Undoped GaAs-AlGaAs Multiple Quantum Well Heterostructures. K.T. Tsen, J. Klem and H. Morkoc. Solid State Communications 59, 537-540 (1986).

(6) Population relaxation time of non-equilibrium LO phonons and electron- phonon interactions in GaAs-AlGaAs multiple quantum wells. K.T. Tsen and H. Morkoc. Phys. Rev. B34, 4412-4414 (1986).

(7) Picosecond time-resolved Raman studies of the expansion of electron-hole plasma in GaAs-AlGaAs multiple quantum well structures. K.T. Tsen and H. Morkoc. Phys. Rev. B34, 6018-6021 (1986).

(8) Picosecond time-resolved Raman studies of the expansion of electron-hole plasma in Si. K.T. Tsen. Phys. Rev. B35, 4134-4136 (1987).

(9) Laser-induced anti-Stokes resonance Raman scattering: probe for energy transfer in center/CN^- molecule defect-pair in CsCl. K.T. Tsen, G. Halama and F. Luty. Phys. Rev. B36, 9247-9252 (1987).

(10) Expansion of the electron-hole plasma in Si: A picosecond time-resolved Raman probe. K.T. Tsen, O.F. Sankey. Phys. Rev. B37, 4321-4324 (1988).

(11) Picosecond Raman studies of the optical phonons in the AlGaAs layers of GaAs-AlGaAs multiple quantum well structures. K.T. Tsen and H. Morkoc. Phys. Rev. B37, 7137-7139 (1988).

(12) Subpicosecond time-resolved Raman spectroscopy of LO phonons in GaAs- $Al_xGa_{1-x}As$ multiple quantum well structures. K.T. Tsen and H. Morkoc. Phys. Rev. B38, 5615-5616 (1988).

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(14) Transport of the photoexcited electron-hole plasma in GaAs quantum wells. K.T. Tsen, O.F. Sankey, G. Halama, S.-C.Y. Tsen and H. Morkoc. Phys. Rev. B39, 6276-6278 (1989).

(15) Determination of the local Al concentration in the $Al_xGa_{1-x}As$-GaAs quantum-well structures with the (200) diffraction intensity. H.-J. Ou, S.-C.Y. Tsen, K.T. Tsen, J.M. Cowley, J.I. Chyi, A. Salvador

and H. Morkoc. Appl. Phys. Lett. 54, 1454-1456 (1989).

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(31) Analysis of Single-particle scattering spectra due to spin-density fluctuations in n-GaAs. K. T. Tsen,

C. Chia and O. F. Sankey. J. Appl. Phys. 73, 3023-3027 (1993).

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(39) Non-equilibrium electron distribution and high-field electron transport in an AlGaAs based p-i-n nanostructure semiconductor - a picosecond Raman probe. E.D. Grann. S.J. Sheih, K.T. Tsen, S.E. Guncer, D.K. Ferry, A. Salvador, A. Botcharev and H. Morkoc. IEEE J. of Selected Topics in Quantum Electronics, Vol.1, No.4, 1093-1099 (1995).

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(42) Picosecond time-resolved Raman studies of the confined optical phonons in short period GaAs-AlAs multiple quantum well structures, K.T. Tsen, J. of Raman Spectroscopy 27, 277-279 (1996).

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(46) Electron velocity overshoot and non-equilibrium phonons in GaAs-based p-i-n nanostructure semiconductor studied by transient subpicosecond Raman spectroscopy, E. D. Grann, K.T. Tsen, D.K.

Ferry, A. Salvador, A. Botcharev, H. Morkoc. Phys. Rev. B53, 9838-9846 (1996).

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(49). Transient subpicosecond Raman studies of electron velocity overshoot in an InP p-i-n nanostructure semiconductor. K.T. Tsen, D.K. Ferry, J.S. Wang, C.H. Huang and H.H. Lin, Appl. Phys. Lett. 69, 3575-3577 (1996).

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Invited talks:

1. "Subpicosecond time-resolved Raman studies of electron-phonon and phonon- phonon interactions in GaAs-$Al_xGa_{1-x}As$ multiple quantum well structures", presented at the 10th Int. Conf. on Lasers and Applications, December 7- 11, 1987 (Lake Tahoe, NV).

2. "Time-resolved Raman studies in GaAs-$Al_xGa_{1-x}As$ multipled quantum well structures", presented at "Ultrafast Laser Probe in Bulk and Microstructure Semiconductors II" SPIE Symposium, March 13-18, 1988 (Newport Beach, CA).

3. "Non-equilibrium carrier relaxation in semiconductor quantum well structures", Department of Physics, National Tsin-Hwa University, Taiwan, July 15, 1990.

4. "Time-resolved Raman studies of the transport properties of exciton in GaAs quantum wells". Presented at the NATO Advanced Research Workshop on Light Scattering in Semiconductors Structures and Superlatticies. March 15-19, 1990 (De Tremblant, Canada).

5. "Nonequilibrium phonon effects on the transient expansion of photoexcited electron-hole plasma". "Ultrafast Laser Probe in Bulk and Microstructure Semiconductors III". SPIE Symposium, March 18-21, 1990, (San Diego, CA).

6. "Time-resolved Raman studies of electron-optical phonon interactions in GaAs-AlAs multiple quantum well structures". NATO Advanced Research Workshop on "phonons in semiconductor nanostructures". Sept. 27-30 (Barcelona, Spain , 1992).

7. "Electron-optical phonon interactions in polar semiconductor quantum wells". American Physical Society, March meeting, March 23-27 (Seattle, WA , 1993).

8. "Picosecond and sub-picosecond time-resolved Raman studies of thin GaAs-AlAs multiple quantum well structures". XIVth Int. Conf. on Raman Spectroscopy (Hong Kong, Aug. 1994).

9. "Carrier relaxations in GaN", presented at the Ameriacn Physical Society, March meeting, March 22-26 (Kansas City, MO, 1997).

10. "Subpicosend/picosecond time-resolved Raman studies of electron-phonon, phonon phonon interactions and novel transient carrier properties in semiconductors", (Institute of Atomic and Molecular Sciences, Academia Sinica, Taiwan, Nov. 11, 1997).

11. "Electron-phonon interactions in AlGaAs-nonmonotonic dependence upon the alloy composition", K.T. Tsen, D.K. Ferry, A. Salvador, H. Morkoc. SPIE Photonic West'99 Int. Sym. on "Ultrafast Phenomena in Semiconductors III", San Jose, CA (Jan. 1999).

12. "Time-resolved Raman spectroscopy as a probe for novel electron transport in semiconductors", presented at National Tsin-Hwa University (Taiwan, Nov, 1999)

13. "Novel electron transport in semiconductor nanostructures studied by time-resolved Raman spectroscopy", presented at Fu-Jen University (Taiwan, Nov, 1999).

14. "Subpicosecond time-resolved Raman studies of ballistic electron transport in InP". SPIE Photonic West'00 Int. Sym. on "Ultrafast Phenomena in Semiconductors IV", San Jose, CA (Jan. 2000).

15. "Non-equilibrium electron distributions and energy loss rate in InGaAsN studied by picosecond Raman spectroscopy". SPIE Photonic West'01 Int. Sym. on "Ultrafast Phenomena in Semiconductors V", (San Jose, Jan. 2001).

16. "Studies of field-induced transient hole transport in an AlGaAs-based p-I-n nanostructure by picosecond Raman spectroscopy". SPIE Photonic West'02 Int. Sym. on Ultrafast Phenomena in Semiconductors VI. (San Jose, Jan. 2002).

17. "Picosecond/subpicosecond time-resolved Raman studies of electron and hole transports in nanostructure semiconductors", presented at National Taiwan University on Dec. 26, 2002.

18. "Subpicosecond time-resolved Raman studies of electron and hole transports and optical phonon instability in nanostructure semiconductors", presented at Chung-Yuan University on Dec. 27, 2002.

19. "Optical studies of novel carrier transport properties in semiconductor nanostructures", presented at National Taiwan Normal University on Dec. 16, 2003.

20. "Optical phonon instabilities induced by drifting electrons in semiconductor nanostructures", presented at National Taiwan Normal University on Dec. 16, 2003.

21. "Transient novel carrier transport properties in semiconductor nanostructures", presented at Fu-Jen University on Dec. 18, 2003.

22. "Novel carrier transport properties in semiconductor nanostructures", presented at National Chia-Tung University on Dec. 19, 2003.

23. "Introduction to light scattering in semiconductor nanostructures", presented at Fu-Jen University on Dec. 1, 2004.

24. "Ultrafast optical studies of nitride-based semiconductors", presented at Institute of Optoelectronics, National Taiwan University, September 2, 2005.

25. "Ultrafast optical studies of nitride-based semiconductors", presented at National Tsing-Hua University, Oct. 17, 2005

26. "Ultrafast optical studies of nitride-based semiconductors", presented at National Tong-Hwa Univresity, Nov. 17, 2005.

27. "Ultrafast optical studies of nitride-based semiconductors", presented at Fu-Jen university, Dec. 7, 2005,

28. “Ultrafast optical studies of nitride-based semiconductors”, presented at National Taiwan Normal University, Nov. 23, 2005.

29. “Ultrafast optical studies of nitride-based semiconductors”, presented at National Sun-Yat sun University, Dec. 15, 2005.

30. “Ultrafast optical studies of nitride-based semiconductors”, presented at Tamkang University, Dec. 6, 2005.

31. “Ultrafast optical studies of nitride-based semiconductors”, presented at Institure of Physics, Academia Sinica, Taipei, R.O.C., Nov. 15, 2005.

32. “Ultrafast optical studies of nitride-based semiconductors”, to be presented at National Ocean University, Jan. 5, 2006.

33. “Ultrafst Raman scattering studies of electron transport in a think InN film grown on GaN”, to be presented at SPIE Photonic West'06 International Symposium– Ultrafast Phenomena in Semiconductors and Nanostructure Materials X (San Jose, Jan. 23, 2006).

34. “Ultrafast optical studies of nitride-based semiconductors”, presented at University of Maryland (April, 26, 2006)

36. “Subpicosend time-resolved Raman studies of LO phonons in GaN”, presented at SPIE Photonic West’07 Int. Conference on Gallium Nitride Materials and Devices II (San Jose, Jan. 22, 2007).

35 “Studies of LO phonons in GaN by subpicosecond time-resolved Raman spectroscopy”, presented at SPIE Photonic West'07 International Symposium – Ultrafast Phenomena in Semiconductors and Nanostructure Materials XI (San Jose, Jan. 24, 2007).

36:”Inactivation of viruses with femtosecond laser pulses”, Center for Biophysics, Arizona State University (Sept. 4, 2007).

Professional services:

1. Chair of the SPIE Photonic West'98 International Symposium -- Ultrafast Phenomena in Semiconductors II, held at San Jose, CA (Jan. 24 to 30, 1998) (with Harold R. Fetterman);

2. Chair of the SPIE Photonic West'99 International Symposium -- Ultrafast Phenomena in Semiconductors III, held at San Jose, CA (Jan. 22 to 28,1999).

3. Chair of the SPIE Photonic West'00 International Symposium -- Ultrafast Phenomena in Semiconductors IV, held at San Jose, CA (Jan. 23 to 29, 2000) (with Jin-Joo Song).

4. Chair of the SPIE Photonic West'01 International Symposium -- Ultrafast Phenomena in Semiconductors V, held at San Jose, CA (Jan. 23 to 29, 2001) (with Hong-Xing Jiang and Jin-Joo Song).

5. Chair of the SPIE Photonic West'02 International Symposium -- Ultrafast Phenomena in Semiconductors VI, held at San Jose, CA (Jan. 23 to 29, 2002) (with Hong-Xing Jiang and Jin-Joo Song).

6. Chair of the SPIE Photonic West'03 International Symposium -- Ultrafast Phenomena in Semiconductors VII, held at San Jose, CA (Jan. 23 to 29, 2003) (with Hong-Xing Jiang and Jin-Joo Song).

7. Chair of the SPIE Photonic West'04 International Symposium -- Ultrafast Phenomena in Semiconductors and Nanostructure Materials VIII, held at San Jose, CA (Jan. 26 to 29, 2004) (with Hong-Xing Jiang and Jin-Joo Song).

8. Organizer of the Focus Session: "IR Applications of Semiconductor Nano- and Microstructures", in the March meeting of American Physical Society (Austin, TX, March 3-7, 2003), (together with Unil Perera).

9. Session Chair for the Focus Session: "Optoelectronic/Laser and High Frequency Devices and Applications", in the March meeting of American Physical Society (Austin, TX, March 3-7, 2003).

10. Chair of the SPIE Photonic West'05 International Symposium -- Ultrafast Phenomena in Semiconductors and Nanostructure Materials IX, held at San Jose, CA (Jan. 24 to 27, 2005) (with Hong-Xing Jiang and Jin-Joo Song).

11. Chair of the SPIE Photonic West'06 International Symposium -- Ultrafast Phenomena in Semiconductors and Nanostructure Materials X, held at San Jose, CA (Jan. 22 to 26, 2006) (with Hong-Xing Jiang and Jin-Joo Song).

12 Chair of the SPIE Photonic West'07 International Symposium -- Ultrafast Phenomena in Semiconductors and Nanostructure Materials XI, to be held at San Jose, CA (Jan. 22 to 25, 2007) (with Jin-Joo Song).

13. Chair of the SPIE Photonic West'08 International Symposium -- Ultrafast Phenomena in Semiconductors and Nanostructure Materials XII, to be held at San Jose, CA (Jan. 19 to 24, 2008) (with Jin-Joo Song).

14. Chair of the SPIE Photonic West'08 International Symposium -- Ultrafast Phenomena in Semiconductors and Nanostructure Materials XIII, to be held at San Jose, CA (Jan. 19 to 24, 2009) (with Jin-Joo Song).

Refereed conference proceeding:

(1) Raman probe of the Brillouin zone for non-equilibrium phonons in GaAs. R. Bray, K.T. Tsen and K. Wan. Proceedings of the 4th International Conference on phonon scattering in condensed matter, University of Stuttgart, W. Germany. Edited by W. Eisenmenger, K. Lapmann and S. Dottinger, 121-123 (1984).

(2) Raman scattering and the two-phonon density of states in GaAs. M. Lax, V. Narayanamurti, R.C. Fulton, R. Bray, K.T. Tsen and K. Wan. Proceedings of the 4th International Conference on phonon scattering in condensed matter, University of Stuttgart, W. Germany. Edited by W. Eisenmenger, K. Lapmann and S. Dottinger, 133-135 (1984).

(3) The observation of the expansion of electron-hole plasma in GaAs-$Al_xGa_{1-x}As$ multiple quantum well structures. K.T. Tsen and H. Morkoc. Proc. of the 13th Int. Symp. on Gallium Arsenide and related compounds. Inst. Phys. Conf. Ser. No. 83: Chp. 6, 337-342 (1987).

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(8) Time-resolved Raman studies of the transport properties of excitons in GaAs Quantum wells. K.T. Tsen and O.F. Sankey, Proceedings of NATO Advanced Research Workshop on Light Scattering in Semiconductor Structures and Superlatticies, Edited by David J. Lockwood and J.F Young, ASI series B: Vol. 273, 393-399 (1990).

(9) Time-resolved Raman studies of electron-optical phonon interactions in GaAs-AlAs multiple quantum well strutures. K. T. Tsen, C. Chia, K. Walk, T. Ruf, P. Y. Yu and H. Morkoc. NATO Advance Research Workshop on "Phonons in Semiconductor Nanostructures". ASI series E, Vol. 236, 195-202 (1992), Barcelona, Spain.

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(14) Subpicosecond Raman Studies of electron velocity overshoot in a GaAs-based p-i-n nanostructure semiconductor, E. Grann, K.T. Tsen, D.K. Ferry, A. Salvador, A. Botcharev and H. Morkoc. Proc. of the 9th Int. Conf. on Hot-Carrier in Semiconductors, edited by K. Hess, J.P. Leburton, U. Ravaioli (Plenum Press, New York, 1996), p.501-504.

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(19) Direct observation of electron velocity overshoot in an InP p-i-n nanostructure semiconductor a subpicosecond Raman probe. K.T. Tsen, D.K. Ferry, J.S. Wang, C.H. Huang and H.H. Lin. Proc. of SPIE Photonic West'98 Int. Sym. on "Ultrafast Phenomena in Semiconductors II", edited by K.T. Tsen and H.R. Fetterman. Vol. 3277, P. 273-282, 1999.

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(26) Raman studies of the decay of the longitudinal optical phonons in wurtzite GaN and AlGaN. K.T. Tsen, D.K. Ferry, A. Botchkarev, A. Salvador, H. Morkoc. Proc. of SPIE Photonic West'00 Int. Sym. on "Ultrafast Phenomena in Semiconductors IV", edited by K.T. Tsen and J.J. Song, Vol. 3940, P. 270-278, 2001.

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(34) Electron and hole velocity overshoots in an AlGaAs nanostructure observed by subpicosecond Raman spectroscopy, K.T. Tsen, W. Liang, D.K. Ferry, Proc. of SPIE Photonic West'4 Int. Sym. on "Ultrafast Phenomena in Semiconductors and Nanostructure Materials VIII", Vol. 5352, p.412-421.

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(36) Studies of electron and hole velocity overshoots in a GaAs-based p-i-n semiconductor nanostructure by picosecond Raman spectroscopy, W. Liang , K. T. Tsen, C. Poweleit, J.M Barker, D.K. Ferry, H. Morkoc, Proc. of SPIE Photonic West'05 International Symposium – Ultrafast Phenomena in Semiconductors and Nanostructure Materials IX, edited by K.T. Tsen, Hong-Xing Jiang and Jin-Joo Song, Vol. 5725, 360-370.

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(3) Picosecond time-resolved Raman studies of plasma expansion in GaAs quantum wells. K.T. Tsen, G. Halama, H. Morkoc. Bull. Am. Phys. Soc., Vol. 33, No. 3, p. 366 (1988).

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2. Raman probe studies of non-equilibrium Large-wavevector phonons in n-GaAs. Bull. Am. Phys. Soc., Vol. 28, No. 3, 281 (1983).

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