

臺韓電漿物理研討會 2006
Taiwan-Korea Plasma Conference 2006
(subject to change without notice)

Time: 1/16-1/18 Place: NTU (1/16) NCHC(1/17 -18)

1/16	PSROC@NTU		
10:00-13:00	Registration and Lunch		
13:00-19:00	Plasma and General Physics		
1/17	TK1@NCHC		
9:00-9:20	Registration Coffee/Breakfast		
9:20-10:50	Plenary Talks	Liu, Lou Lee, Park	C Z Cheng
10:50-11:00	Coffee Break		
11:00-12:20	Invited Talks Fusion and Space Plasmas		JY Hsu
12:20-1:20	Lunch		
1:20-3:00	Invited Talks Wave and Applications		LN Hau
3:00-3:10	Coffee Break		
3:10-4:30 4:40-6:00	Invited Talks Low Temperature Plasmas		KC Cheng KC Leou
6:00-9:00	Dinner		
1/18	TK1@NCHC		
9:00-9:20	Registration Coffee/Breakfast		
9:20-10:50	Plenary Talks	JK Lee, I, Cheng	K R Chu
10:50-11:00	Coffee Break		
11:00-12:00	Invited Talks Computational Plasma Physics		Lin-Liu
12:00-1:00	Lunch		
1:00-1:40	Invited Talks Industrial Applications		KR Chen
1:50-6:00	Trip to YinGge Ceramic Museum		
6:00	Dinner at YinGge Old Town		
9:00	Back to Hsinchu		

1/17 9:20 – 10:50 *Plenary Talks*

Relativistic Laser Plasma Interaction and Monoenergetic Electron Acceleration

C. S. Liu, National Central University, Chungli, Taiwan

Solar coronal heating and FORMOSAT-2 observations of transient luminous events in the Earth's upper atmosphere

L. C. Lee, National Applied Research Laboratories

First Observation of Collective Heat Transfer during Driven 'X-point' Reconnection Processes in Magnetically Confined Plasmas

H. K. Park, Princeton Plasma Physics Laboratory, Princeton, New Jersey, U.S.A

1/17 11:00 – 12:20 *Fusion and Space*

Localized cyclotron modes driven by alphas in nonuniform magnetic field: challenge views on resonance

K. R. Chen, National Cheng Kung University, Tainan, Taiwan

Nonlinear analysis of the edge turbulence in a Hanbit mirror plasma,

Chang-Mo Ryu Department of physics, POSTECH, Pohang 790-784, Korea

New aspects of magnetic reconnection,

L.-N. Hau, S.-W. Chiou and C.-C. Hung, National Central University, Taiwan

Key results from the ISUAL experiment,

Han-Tzong Su, Rue-Ron Hsu, Alfred B. Chen, Lou-Chuang Lee, Department of Physics, National Cheng Kung University, Tainan, Taiwan

1/17 1:20 – 3:00 *Waves and Applications*

Nonlinear Investigation of the Electron Cyclotron Maser,

T. H. Chang¹, K. F. Pao², C. T. Fan¹, S. H. Chen³, C. F. Yu¹, and K. R. Chu¹,¹Department of Physics, National Tsing Hua University, Hsinchu, ²National Center for Theoretical Sciences, Hsinchu, ³ Department of Physics, National Changhua University of Education, Changhua

Wave propagation in a two-ion plasma around the ion cyclotron range of frequencies, :Application of invariant imbedding method

K.-S. Kim, E.-H. Kim, D.-H. Lee, K. Kim, Postech, Korea

Enhanced transmission of light through sub-wavelength slit

K. R. Chen, J. Y. Lai, and J. S. Hong, Physics Department and Institute of Electro-optics, National Cheng Kung University

Nanolayer parametric instability in near-field optics

J. Y. Hsu, NCHC/NTHU, HsinChu, Taiwan

Optical tunneling effect of localized surface plasmon: A simulation study using particle-in-cell method, *Yung-Chiang Lan, Institute of Electro-Optical Science and Engineering, National Cheng Kung University, No. 1 University Road, Tainan 701, Taiwan, Republic of China,*

1/17 3:00 – 4:20 4:30-6:00 Low Temperature Plasma Physics

Surface modification of materials by plasma immersion ion implantation in INER

W.F. Tsai and C.F. Ai, Physics Division, Institute of Nuclear Energy Research, Taoyuan, Taiwan

Yield Enhancement Using Specialized Dry Etch for Wafer Bevel Area

B. Jeon, and J. W. Shon, Semiconductor Plasma Department, Plasma R&D, JuSung Engineering Co. Ltd., Gwangju-si, Gyeonggi-do, 464-892, S. Korea

Growth of Suspended Single-Walled Carbon Nanotubes Crossing Plasma Sharpened Carbon Nanofiber Tips

C.H. Weng, K.C. Leou, W.Y. Lee, Z.Y. Juang, and C. H. Tsai, Engineering and System Science Department, National Tsing Hua University, Hsinchu, Taiwan, 30013

Surface modification of particles using atmospheric plasma

Yong Kwan Lee PLASMART. Co. Ltd., Daejeon, Korea

Electrical Characteristic Improvement of High-k Gated MOS Device by Plasma Immersion Ion Implantation, *Kuei-Shu Chang-Liao*¹, Ping-Hung Tsai¹, H.Y. Kao¹, S.F. Huang², W.F. Tsai², and C.F. Ai².*

¹Department of Engineering and System Science, National Tsing Hua University, Hsinchu, Taiwan, ²Physics Division, INER, Taoyuan, Taiwan

Effective collision frequency concept

G. J. Kim, G.Y. Park, F. Iza, and J. K. Lee, Department of Electronics and Electrical Engineering, Pohang University of Science and Technology, Pohang, 790-784, S. Korea

Development of Atmospheric Pressure Plasma Devices for the Next Generation Manufacturing of TFT-LCD

B. J. Lee, T. Lho, D. C. Seok and S. Y. Ryu, National Fusion Research Center, Korea

Diagnostics of Electro-negative CH₂F₂/CF₄ Plasma Using Langmuir Probe and Quadruple Mass Spectrometry

T. C. Wei and C. H. Liu, Department of Chemical Engineering, Chung Yuan University, Chung Li, Taiwan

1/18 9:20 – 10:50 Plenary Talks

Liquid through Dusty Plasma

Chia-Ling Chan, Yu-Hsuan Huang, Hong-Yu Chu, and Lin I, Department of Physics, National Central University, Chungli, Taiwan, R.O.C.

Modeling of Processing Plasmas and their Fundamentals

J. K. Lee, Department of electronic and Electrical Engineering, Postech, Korea

Taiwan's Space Science Program

C. Z. Frank Cheng, National Space Organization, Taiwan

1/18 11:00 – 12:00 Computational Plasma Physics

Development of a parallel 2-dimensional particle-in-cell code and its application to a coaxial magnetron for the inner coating of narrow tubes

F. Iza, G.J. Kim, and J.K. Lee, Department of electronic and Electrical Engineering, Postech, Korea

Kinetic Simulations of Micro Plasmas

S. M. Lee, S. H. Lee, S. S. Yang, F. Iza, and J. K. Lee, Department of Electronics and Electrical Engineering, Pohang University of Science and Technology, Pohang, 790-784, S. Korea

Assesment of Matrix Solvers for Poisson's Equation in a Three-dimensional PIC-FEM Code

J.-S. Wu and K.-H. Hsu, NCTU

1/18 1:00 – 1:40 Industrial Applications

Study on Plasma Vitrification of Ash Residues from Municipal Solid Waste Incinerators,

C.C. Tzeng, W.C. Lee, H.Y. Li, Y. J. Yu, L. C. Chang, Y. S. Huang, C. L. Huang, S. F. Yang, Y. C. Chen, J. T. Uen, J.M. Hwang, C. H. Kuo and T.M. Hung, INER, Taiwan, R.O.C

A study on a micro-plasma generation and detection by plasma needle for bio-medical applications

Chae-Hwa Shon, Young-Wook Choi, Sun-Shin Jung, Young-Bae Kim, and Seok-Gy Jeon, KERI, S. Korea

Author List in Alphabetical Order

Hong-Young Chang, Department of Physics, KAIST, Yusung-Gu, Daejeon, South Korea
On the processing Plasma Sources

**Kuei-Shu Chang-Liao¹, Ping-Hung Tsai¹, H.Y. Kao¹, S.F. Huang², W.F. Tsai², and C.F. Ai², ESS, NTHU¹,
Physics, INER²**
Electrical Characteristic Improvement of High-k Gated MOS Device by Plasma Immersion Ion Implantation

T. H. Chang, K. F. Pao, C. T. Fan, S. H. Chen, C. F. Yu, and K. R. Chu, NTHU
Nonlinear Investigation of the Electron Cyclotron Maser

Jong-Sheng Chen
Numerical Simulation Of Plasma Spray Coating System

K. R. Chen, National Cheng Kung University
Localized cyclotron modes driven by alphas in nonuniform magnetic field: challenge views on resonance

L.-N. Hau, S.-W. Chiou and C.-C. Hung, NCU
New aspects of magnetic reconnection

J. Y. Hsu, NCHC/NTHU
Nanolayer Parametric Instability in Near Field Optics

K.-H. Hsu and J.-S. Wu, NCTU
Development of a Parallel Vector Potential Equation Solver and Its Application in Predicting the Magnetostatic Field Within a Sputtering Chamber

**F. Iza, G.J. Kim, and J.K. Lee, EE, Pohang University of Science and Technology
(POSTECH)(fiza@postech.ac.kr)**
Development of a parallel 2-dimensional particle-in-cell code and its application to the inner coating of narrow tubes in a coaxial magnetron

**B. Jeon, and J. W. Shon, Semiconductor Plasma Department, Plasma R&D, JuSung Engineering Co. Ltd.,
Gwangju-si, Gyeonggi-do, 464-892, S. Korea**
Yield Enhancement Using Specialized Dry Etch for Wafer Bevel Area

G.J. Kim, G.Y. Park, F. Iza, and J.K.Lee
Department of Electronics and Electrical Engineering, POSTECH, Pohang, S.Korea
Effective collision frequency concept

K.-S. Kim, E.-H. Kim, D.-H. Lee, K. Kim
Wave propagation in a two-ion plasma around the ion cyclotron range of frequencies
:Application of invariant imbedding method

Yung-Chiang Lan, NCKU
Optical tunneling effect of localized surface plasmon: A simulation study using particle-in-cell method

BongJu Lee, SEM Group, Korea

Atmospheric Pressure Plasma for Soft asher and Etcher for Display

**S.M.Lee, S.H. Lee, S.S. Yang, F. Iza, and J.K.Lee, Department of Electronics and Electrical Engineering, Postech
Kinetic Simulations of Micro Plasmas**

Yong Kwan Lee, Plasmart, Inc., Korea

Surface modification of particles using atmospheric plasma

**Yu.A.Lebedev, M.V. Mokeev, A.V.Tatarinov, I.L.Epstein, A.V.Topchiev Institute of Petrochemical Synthesis
RAS, Moscow, Russia (could not get passport in time)**

Something About Electrode Microwave Discharge at Reduced Pressures

CM Ryu, Department of physics, POSTECH, Pohang 790-784, Korea

Nonlinear analysis of the edge turbulence in a Hanbit mirror plasma

Chae-Hwa Shon, Young-Wook Choi, Sun-Shin Jung, Young-Bae Kim, and Seok-Gy Jeon, KERI, S. Korea

A study on a micro-plasma generation and detection by plasma needle for bio-medical applications

W.F. Tsai and C.F. Ai, INER

Surface modification of materials by plasma immersion ion implantation in INER

**C.C. Tzeng, W.C. Lee, H.Y. Li, Y. J. Yu, L. C. Chang, Y. S. Huang, C. L. Huang, S. F. Yang, Y. C. Chen, J. T. Uen, J.M.
Hwang, C. H. Kuo and T.M. Hung, INER**

STUDY ON PLASMA VITRIFICATION OF ASH RESIDUES FROM MUNICIPAL SOLID WASTE INCINERATORS

Han-Tzong Su, Rue-Ron Hsu, Alfred B. Chen, Lou-Chuang Lee, Department of Physics, NCKU

Key results from the ISUAL experiment

T. C. Wei and C. H. Liu, Department of Chemical Engineering, Chung Yuan University, Chung Li, Taiwan

Diagnostics of Electro-negative CH₂F₂/CF₄ Plasma Using Langmuir Probe and Quadruple Mass Spectrometry

C.H. Weng, K.C. Leou, W.Y. Lee, Z.Y. Juang, and C.H. Tsai

Growth of Suspended Single-Walled Carbon Nanotubes Crossing Plasma Sharpened Carbon Nanofiber Tips

J.-S. Wu and K.-H. Hsu, NCTU

Assesment of Matrix Solvers for Poisson's Equation in a Three-dimensional PIC-FEM Code