

**Agenda for Plasma Facing Components (PFC) Meeting  
February 28-March 2, 2006  
UCSD, San Diego CA  
“Yosemite Room” – Canyon Vista**

**Tuesday Feb. 28, 2006**

**Session 1: PFC Opening Session 8:30-9:30 am**

- Welcome – George Tynan, Russ Doerner (UCSD)
- PFC Steering Committee Chairman Report – Jeff Brooks (ANL)
- DOE Report – Gene Nardella (DOE)
- US ITER Work/Status overview – Mike Ulrickson (SNL) (20min)

**Session 2: Tokamak Experiments (C. Wong Chair) 9:30 am-12:00 n**

9:30-9:50	B. Lipschultz (MIT) <i>CMOD Results from boronization and W-divertor</i>
9:50-10:05	D. Whyte (UW) <i>CMOD Results from deuterium retention</i>
10:05-10:20	R. Kaita (PPPL) <i>Final lithium experiments on CDX-U and LTX status</i>
10:20-10:35	S. Allen (LLNL) <i>Overview of DIII-D boundary physics</i>
10:35-10:50	Break
10:50-11:05	P. West (GA) <i>Dust in the DIII-D SOL during normal plasma operation</i>
11:05-11:20	D. Rudakov (UCSD) <i>Temp. dependence of C erosion/dep. and D co-dep. in the DIII-D divertor</i>
11:20-11:35	W. Wampler (SNL) <i>Deposition of <math>^{13}\text{C}</math> from injected methane in L and H-mode plasmas in DIII-D.</i>
11:35-11:50	P. Anderson (GA) <i>DIII-D new lower divertor</i>
11:50-12:00n	M. Ulrickson (SNL) <i>EAST and PFC plans</i>

12:00-1:00 pm Lunch

**Session 3: Plasma Edge/PMI Modeling (T. Rognlien, J. Brooks, Chairs)**  
**1:00–3:15 pm**

1:00-1:15	S. Krasheninnikov (UCSD) <i>Thermal instability of gas desorption due to plasma-wall interactions</i>
1:15-1:35	J. Brooks (ANL) <i>Be and W erosion/transport from the ITER main chamber wall and divertor</i>
1:35-1:55	T. Rognlien (LLNL) <i>ITER edge plasmas (2nd x-pt, Be, Mo/W, multi-charge carbon)</i>
1:55-2:10	C. Holland (UCSD) <i>Validation of Edge Turbulence Simulations Using Laboratory Plasmas</i>
2:10-2:25	Z. Insepov (ANL) <i>Bubble formation and enhanced sputtering of liquid metal surfaces</i>
2:25-2:45	A. Hassanein (ANL) <i>Effect of VDEs and ELMs on PFCs</i>
2:45-3:00	I. Konkashbaev (ANL) <i>Liquid metal divertor concept for tokamaks with low aspect ratio such as NSTX</i>
3:00-3:15	E. Bringa (LLNL) <i>MD potentials and sputtering simulations</i>

3:15-3:30 Break

**Session 4: Discussion: Tokamak Experiments & Plasma Edge/PMI Modeling; comments/critical-issues/directions (R. Kaita, N. Morley Chairs)**  
**3:30-5:00 pm**

5:00 PM Adjourn

[ Tuesday 6:00 PM, PFC Conference Banquet – Rock Bottom Restaurant & Brewery – Small Dining Room (3 tables of 10) – 8980 Villa La Jolla Drive – 858-450-9277]

## Wednesday March 1

### Session 5: PMI Laboratory Experiments (R. Bastasz, Chair) 8:30–11:30 am

8:30–8:50	D. Ruzic (UIUC) <i>High-current helium retention measurements in flowing liquid Li</i>
8:50–9:10	M. Coventry (UIUC) <i>Measurements of temperature-enhanced sputtering in liquid Sn</i>
9:10–9:30	T. Gray (UIUC) <i>Deuterium plasma heat flux measurements on ESP-Gun</i>
9:30–9:50	D. Whyte (UW) <i>First results on dynamics of deuterium retention from DIONISOS</i>
9:50–10:10	Break
10:10–10:30	M. Baldwin (UCSD) <i>Be-W alloy formation in PISCES-B</i>
10:30–10:50	D. Nishijima (UCSD) <i>Dynamic behavior of chemical erosion mitigation in Be seeded plasmas</i>
10:50–11:10	E. Hollmann (UCSD) <i>The effect of rotational and vibrational excitation of H<sub>2</sub> on detached divertor physics</i>
11:10–11:30	Discussion: PMI Lab Experiments

### Session 6: Heat Transfer and Fluid Flow (& misc. topics) (R. Nygren Chair) 11:30-12:00n; 1:00-2:00 pm

11:30–11:45	R. Nygren (SNL) <i>Status of PMTF</i>
11:45-12:00n	D. Youchison <i>Recent translation capabilities among Heat Transfer, EM, Stress and CFD Codes</i>

### 12:00-1:00 pm Lunch

(Session 6 continued; 1:00-2:00 pm)

1:00–1:20	R. Boyd (Prairie View A&M) <i>Institute for High Heat Flux Removal-Phase 1</i>
1:20-1:35	L. Zahkarov (PPPL) <i>Getting serious about fusion: Ignited Spherical Tokamaks and their PSI issues</i>
1:35-1:50	C. Wong (GA) <i>DiMES &amp; MiMES</i>
1:50-2:00	J. Yu (UCSD) <i>Time-Delay-Estimation Measurements of Convective SOL Flow Velocities</i>

**Session 7: SBIR/STTR-Progress reports on funded projects (D. Youchison Chair) 2:00-3:35 pm**

2:00-2:15	Martin Pattison, Metaheuristics, Inc. Phase-II SBIR, “Lattice Boltzman Simulation of Flows with MHD Effects”
2:15-2:30	Ramakanth Munipalli, Hypercomp, Inc., presented by Neil Morley, UCLA 2 Phase-II SBIRs, “HIMAG: Approach towards High Hartmann Numbers on Complex Geometries”
2:30-2:45	Scott O'Dell, Plasma Processes, Inc. Phase-II SBIR, “Review of PFC Activities at PPI
2:45-3:00	John Hartenstine, ACT, Inc Phase-I SBIR, “Refractory Substrate/Capillary Assisted/Thin Flowing Lithium Film Plasma Facing Component
3:00-3:07	Tim Stewart, Ultramet, Inc. phase-I SBIR, “Advanced Tungsten Structures for Plasma-Facing Components in Magnetic Confinement Fusion Energy Reactors” and “Flow Channel Inserts for Dual-Coolant ITER Test Blanket Modules”
3:07-3:15	Matt Wright, Ultramet, Inc. phase-I SBIR, “Flow Channel Inserts for Dual-Coolant ITER Test Blanket Modules”
3:15-3:25	Kirby Woods, InnoTech Engineering Solutions, Inc. <i>Phase-I SBIR Proposal, “PFC Examination Challenges and Opportunities.”</i>
3:25-3:35	Vincent Lupien, Acoustic Ideas, Inc. <i>Phase-I SBIR Proposal, “The Use of Phased-Array Ultrasound for Inspection of Plasma Facing Components,”</i>

3:35-3:50 pm Break

**Session 8: Discussion: Laboratory Experiments & Heat Transfer/fluid flow; comments/critical-issues/directions (A. Hassanein, R. Doerner Chairs) 3:50-5:20 pm**

5:20 PM Adjourn

{Wednesday 6 PM, PFC Steering Committee (Dinner) Meeting – Cozymel’s Mexican Restaurant – “Del Sol Private Room” – Tynan reservation for 20 – 4303 La Jolla Village Drive – 858-658-0480}

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**Thursday March 2**

**Session 9: PFC Steering Committee Report (J. Brooks et al.) 8:30-8:45 am**

**Session 10: ALIST (M. Ulrickson R. Kaita, Chairs) 8:45-10:00 am**

8:45-9:05	R. Kaita (PPPL) <i>Lithium on NSTX</i>
9:05-9:25	M. Narula (UCLA) <i>Liquid PFC experiments and modeling</i>
9:25-10:00	Discussion-ALIST Plans/Needs
10:00-10:15	J. Roth (IPP) <i>EU perspective on PFC research</i>

**Session 11: PFC All-topic Discussions/Wrap-up 10:00-11:00 am**

- Summary (2 vgs. max.): session chairs
- Discussions/comments: All

**11:15 am Adjourn**

**Tour of PISCES 11:15-12:00 noon**

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