

ICMR Summer Program on Advanced Thermostructural Materials
 University of California, Santa Barbara
 August 6– 19, 2006

WEEK 1	
Sunday, August 6, 2006 – Santa Ynez Apartments, Jameson Center	
5:30 pm to 7:30 pm	Reception and Registration
Monday, August 7, 2006 – MRL Building, Room 2053	
7:30 am to 8:00 am	Continental Breakfast at MRL
8:00 am to 8:15 am	Welcome by Dr. Tony Cheetham, Director, ICMR
8:15 am to 10:15 am	Lecture – by A.G. Evans, “Role of Materials in Gas Turbine Efficiency”
10:15 am to 10:30 am	Break
10:30 am to 12:30 pm	Lecture – by A. Virkar, “Materials Challenges in Solid Oxide Fuel Cells”
12:30 pm to 1:30 pm	Lunch at the De La Guerra Dining Commons
1:30 pm to 3:30 pm	Poster Session at the MRL Zen Garden (outside 1 st floor)
3:30 pm to 3:45 pm	Break
3:45 pm to 5:45 pm	Posters at the MRL Zen Garden (outside 1 st floor)
6:00 pm	Dinner at the De La Guerra Dining Commons
Tuesday, August 8, 2006 – MRL Building, Room 2053	
7:30 am to 8:15 am	Continental Breakfast at MRL
8:15 am to 10:15 am	Lecture – by Hutchinson and Evans, “Delamination in HT Systems: Mechanics”
10:15 am to 10:30 am	Break
10:30 am to 12:30 pm	Lecture – by D.R. Clarke, “Experimental, Non-contact Methods of Measuring Stresses and Failure in HT Systems”
12:30 pm to 1:30 pm	Lunch at the De La Guerra Dining Commons
1:30 pm to 3:30 pm	Posters at the MRL Zen Garden
3:30 pm to 3:45 pm	Break
3:45 pm to 5:45 pm	Posters at the MRL Zen Garden
6:00 pm	Dinner at the De La Guerra Dining Commons
Wednesday, August 9, 2006 – MRL Building, Room 2053	
7:30 am to 8:15 am	Continental Breakfast at MRL
8:15 am to 10:15 am	Lecture – by B.Wirth and G.R. Odette, “Materials Challenges in Advanced Nuclear Energy Systems: the Promise of Advanced High Performance Alloys”
10:15 am to 10:30 am	Break
10:30 am to 12:30 pm	Lecture – by H.J. Seifert, “Thermodynamics of HT Materials Systems”

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12:30 pm to 1:30 pm	Lunch at the De La Guerra Dining Commons
1:30 pm to 3:30 pm	Discussion
3:30 pm to 3:45 pm	Break
3:45 pm to 5 :45 pm	Thermocalc Tutorial, ABAQUS Tutorial (parallel sessions)
6 :00 pm	Dinner at the De La Guerra Dinning Commons
Thursday, August 10, 2006 - MRL Building, Room 2053	
7:30 am to 8:15 am	Continental Breakfast at the MRL Building
8:15 am to 10:15 am	Lecture – by J.Agren, “Interdifussion in Multicomponent Systems”
10:15 am to 10:30 am	Break
10:30 am to 12:30 pm	Lecture – by A. Van der Van, “First Principals Calculations of Thermodynamic and Kinetic Parameters”
12:30 pm to 1:30 pm	Lunch at the De La Guerra Dinning Commons
1:30 pm to 3:30 pm	Discussion
3:30 pm to 3:45 pm	Break
3:45 pm to 5:45 pm	DICTRA Tutorial, Other Software (parallel sessions)
6:00 pm	Dinner at De La Guerra Dining Commons
Friday, August 11, 2006 – MRL Building, Room 2053	
7:30 am to 8:15 am	Continental Breakfast at MRL Building
8:15 am to 10:15 am	Lecture – by R.M. McMeeking “Deformation and Mechanics at High Temperature”
10:15 am to 10:30 am	Break
10:30 am to 12:30 pm	Lecture – by T.M. Pollock, “Refractory alloys: Design and Processing Challenges”
12:30 pm to 1:30 pm	Lunch at the De La Guerra Dining Commons
1:30 pm to 3:30 pm	Discussion
3:30 pm to 3:45 pm	Break
3:45 pm to 5:45 pm	Experimental Demonstrations and Software Labs
7:30 pm	Dinner at El Paseo Restaurant in downtown Santa Barbara – see shuttle schedule in information packet
Saturday, August 12, 2006 – Free Day	
11:30 am to 1:30 pm	Lunch served at the De La Guerra Dining Commons during this time
5:45 pm to 7:15 pm	Dinner served at the De La Guerra Dining Commons during this time

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WEEK 2	
Sunday, August 13, 2006 – Free Day	
11:30 am to 1:30 pm	Lunch served at the De La Guerra Dining Commons during this time
5:45 pm to 7:15 pm	Dinner served at the De La Guerra Dining Commons during this time
Monday, August 14, 2006 – MSRB Auditorium, Room 1302	
7:30 am to 8:15 am	Continental Breakfast at MRL
8:15 am to 10:15 am	Lecture – by G.H. Meier, “Oxidation and Corrosion in HT Systems”
10:15 am to 10:30 am	Break
10:30 am to 12:30 pm	Lecture – by A.C.F. Cocks, “Modeling Microstructure Evolution at HT”
12:30 pm to 1:30 pm	Lunch at the De La Guerra Dining Commons
1:30 pm to 3:30 pm	Discussion
3:30 pm to 3:45 pm	Break
3:45 pm to 5:45 pm	Experimental Demonstrations and Software Labs
6:00 pm	Dinner at the De La Guerra Dining Commons
Tuesday, August 15, 2006 - MSRB Auditorium, Room 1302	
7:30 am to 8:15 am	Continental Breakfast at MRL
8:15 am to 10:15 am	Lecture – by K. Hemker, “ Structure and Mechanical Properties of Oxidation Resistant Alloys”
10:15 am to 10:30 am	Break
10:30 am to 12:30 pm	Lecture- G.R. Odette and B. Wirth, “A Multiscale Approach to Developing and Predicting the Behavior of High Performance Materials for Advanced Nuclear Energy Systems”
12:30 pm to 1:30 pm	Lunch at De La Guerra Dining Commons
1:30 pm to 3:30 pm	Discussion
3:30 pm to 3:45 pm	Break
3:45 pm to 5:45 pm	Experimental Demonstrations and Software Lab
6:00 pm	Dinner at De La Guerra Dining Commons

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Wednesday, August 16, 2006 – MSRB Auditorium, Room 1302	
7:30 am to 8:15 am	Continental Breakfast at MRL, Room 2053
8:15 am to 10:15 am	Lecture – by S. Phillpot, “Thermal Properties and Materials Structure”
10:15 am to 10:30 am	Break
10:30 am to 12:30 pm	Lecture – by T.D. Bennett, “Thermal Transport and Measurement Techniques”
12:30 pm to 1:30 pm	Lunch at the De La Guerra Dining Commons
1:30 pm to 3:30 pm	Discussion
3:30 pm to 3:45 pm	Break
3:45 pm to 5:45 pm	Experimental Demonstrations and Software Labs
6:00 pm	Dinner at De La Guerra Dining Commons
Thursday, August 17, 2006 – MSRB Auditorium, Room 1302	
7:30 am to 8:15 am	Continental Breakfast at MRL
8:15 am to 10:15 am	Lecture – by F.W. Zolk, “Ceramic Composites: Principles/ Challenges”
10:15 am to 10:30 am	Break
10:30 am to 12:30 pm	Lecture – by D. Marshall, “Actively Cooled, High Heat Flux Structures”
12:30 pm to 1:30 pm	Lunch at the De La Guerra Dining Commons
1:30 pm to 3:30 pm	Discussion
3:30 pm to 3:45 pm	Break
3:45 pm to 5:45 pm	Experimental Demonstrations and Software Lab
6:00 pm	Dinner at De La Guerra Dining Commons
Friday, August 18, 2006 – MSRB Auditorium, Room 1302	
7:30 am to 8:15 am	Continental Breakfast at MRL
8:15 am to 10:15 am	Lecture – by D.R. Mumm, “Interface compatibility issues in SOFCs”
10:15 am to 10:30 am	Break
10:30 am to 12:30 pm	Lecture – by C.G. Levi, “Stability Issues in High Temperature Coatings”
12:30 pm to 1:30 pm	Lunch at the De La Guerra Dining Commons
1:30 pm to 3:30 pm	Wrap- up Session, Student Comments, Evaluations
3:30 pm onwards	Barbecue!!
Saturday, August 19, 2006	
8:00 am to 12:00 pm	Check Out from Santa Ynez Apartments
8:15 am to 11:00 am	Continental Breakfast at the Jameson Patio at the Santa Ynez Apartments