

# THE THIRD INTERNATIONAL CONFERENCE ON PHYSICAL AND NUMERICAL SIMULATION OF MATERIALS AND HOT WORKING(ICPNS'99)

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Oct. 10 – 14, 1999  
Beijing, China



Organized by  
Harbin Institute of Technology

Sponsored by  
National Material Society of China  
Dynamic Systems Inc. (USA)  
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13:30  Chair: M.Naka	1-11.HAZ Cracking and Hot Ductility of Ni <sub>3</sub> AlContaining Zr Alloy Bainian Qian, Institute of Metal Research, Academia Sinica
	1-12.Probabilistic Modeling of Brittle Fracture Considering Prior Ductile Crack Extension Hongyang Jing, Tianjing University, China
	1-13.Weldability Evaluation of a Modern TMCP Steel by Using Simulation Technigues Jerzy Brozda , Poland
	1-14.A Comparison of Published HAZ Thermal Simulation Methods Used to Derive Weld HAZ Thermal Cycles Gang Zhou, The University of Tennessee Knoxville, U.S.A
	1-15.Joining of Ni <sub>3</sub> Al by Pressurized Combustion Synthesis Using Gleeble 1500 Test Simulator Weiping Liu, Dalian Railway Institute, China
15:10	Coffee Break
15:30  Chair: Y.P.Kathuria	1-16.Numerical Simulation on Welding Process of T-joints Haiyan Zhao, Tsinghua University, China.
	1-17.Study on the Predictive Method of Buckling Deformations of Thin-Plate Welded Structures Xinqi Yang, Tianjin University, China
	1-18.Fatigue Crack Growth and crack Closure of Simulated Over- Matched Welded Joints Xiaoyan Li, HIT, China
	1-19.Physical Modeling for Mechanisms of Bead Formation Defects Based on the Stability of Liquid Metal Shuyan Yin, Beijing Polytechnic University, China
	1-20.Computerized Simulation and Experimental Research of Soft- Switching Arc Welding Inverter Power Source Shujun Chen, Beijing Polytechnic University, China

### October 13, Wednesday

Time	Presentation (N0.1 Group—Welding)
8:00  Chair: Gang Zhou	1-21.Numerical Simulation of Thermal and Stress-Strain Distributions for Weld Metal Solidification Cracking in Stainless Steel Yanhong Wei and Renpei Liu, HIT, China
	1-22.The Precipitation of Carbonitride Particles in HSLA Steels to Simulated Weld Thermal Cycles Cibin Gui, University of Navy Engineering, China
	1-23.Investigation of the Microstructure and Properties of Simulated Heat Affected Zone of Laser Welded UL600 Steel Chunfeng Wang, Huazhong University of Science and Technology, China
	1-24.Diffusion Bonding of TiAl to Ti、 TC4 Alloy Peng He, HIT, China
	1-25.The Ion Heating during Plasma Immersion Ion Processing Xiubo Tian, Xiaofeng Wang , Aiguo liu, Langping Wang, Songyan Wang, Baoyin Tang, HIT, China