

Technical Session	Technical Session Organizer
5.2 High Pressure and Thermal Plasma Processing	Michael Keidar (keidar@gwu.edu)

Session TU 2.3: High Pressure and Thermal Plasma Processing

Tuesday, May 23 16:00-17:45, Wildwood 13

Session Chair: Michael Keidar, GWU

16:00 TU 2.3-1 (invited) COMPLEX STRUCTURE OF THE CARBON ARC DISCHARGE FOR NANOMATERIAL SYNTHESIS

V. Vekselman, B. Stratton, Y. Raitses

Princeton Plasma Physics Laboratory, Princeton, NJ, United States

16:30 TU 2.3-2 THERMO- AND PHOTO-OXIDATION IN A LIQUID TREATMENT SYSTEM USING SUBMERGED PLASMA

D. Milelli, F. Lemont, M. Marchand

DEN/DTCD/SCDV/LPIC, CEA Marcoule, Bagnols sur Ceze, France

16:45 TU 2.3-3 NUMERICAL SIMULATION OF RF RESONANT ANTENNA-PLASMA INDUCTIVE COUPLING IN PLANAR GEOMETRY

A. D'Angola^{1,2}, I. Furno³, A. A. Howling³, R. Jacquier³, G. Plyushchev³, P. Guittienne⁴, N. Panarese⁵, R. Zaffina¹

¹*Scuola di Ingegneria, Universita della Basilicata, Potenza, Italy*

²*PLASMI Lab at NANOTEC, Consiglio Nazionale delle Ricerche (CNR), Bari, Italy*

³*SPC, Ecole Polytechnique Federale de Lausanne (EPFL), Lausanne, Switzerland*

⁴*Helyssen, Belmont-sur-Lausanne, Switzerland*

⁵*Politecnico di Torino, Torino, Italy*

17:00 TU 2.3-4 SIMULATING IGNITION AND DEVELOPMENT OF CATHODE SPOTS IN VACUUM ARCS

H. T. C. Kaufmann^{1,2}, M. D. Cunha^{1,2}, M. S. Benilov^{1,2}, W. Hartmann³, N. Wenzel³

¹*Departamento de Física, FCEE, Universidade da Madeira, Funchal, Portugal*

²*IST, Instituto de Plasmas e Fusão Nuclear, Universidade de Lisboa, Lisboa, Portugal*

³*Corporate Technology, Siemens AG, Erlangen, Germany*

17:15 TU 2.3-5 MODELING OF METAL POWER SYNTHESIS USING A PARTICLE TRAJECTORY METHOD IN AN INDUCTIVELY COUPLED PLASMA TORCH

M. Y. Hur¹, D. G. Lee², S. Yang³, H. J. Lee¹

¹*Department of Electric Engineering, Pusan National University, Busan, South Korea*

²*Department of Mechanical Engineering, Pusan National University, Busan, South Korea*

³*Powder Technology Department, Korea Institute of Materials Science, Changwon, South Korea*

17:30 MO 2.3-6 PLASMA GASIFICATION OF BIOMEDICAL WASTE

A. B. Ustimenko¹, V. E. Messerle¹, A. L. Mosse², G. Paskalov³

¹*Research Institute of Experimental and Theoretical Physics of Kazakhstan National University, Almaty, Kazakhstan*

²*A.V. Luikov Heat and Mass Transfer Institute, Minsk, Belarus*

³*Three Hats LLC, Nevada, USA*