

Technical Session	Technical Session Organizer
1.6 Plasma Chemistry	Xin Tu (xin.tu@liverpool.ac.uk)

Session TU 2.1: Plasma Chemistry

Tuesday, May 23, 2017 from 16:00-18:00, Wildwood 9

Session Chair: Xin Tu, University Liverpool

16:00 TU 2.1-1 (invited) GLIDING ARC PLASMA-BASED CO₂ CONVERSION: INSIGHTS FROM NUMERICAL MODELLING

W. Wang¹, A. Bogaerts¹, D. Mei², X. Tu²

¹*Department of Chemistry, research group PLASMANT, University of Antwerp, Antwerp, Belgium*

²*Department of Electrical Engineering and Electronics, The University of Liverpool, Liverpool, United Kingdom*

16:30 TU 2.1-2 MECHANISM OF PLASMA-ASSISTED IGNITION FOR H₂ AND C₁-C₅ HYDROCARBONS

A. Starikovskiy¹, N. Aleksandrov²

¹*Princeton University, Princeton, United States*

²*Moscow Institute of Physics and Technology, Dolgoprudny, Russia*

16:45 TU 2.1-3 COMPARISON OF PULSED DBD AND SPARK DISCHARGE FOR DIRECT METHANE CONVERSION

H. Sun, Y. Gao, R. Wang, S. Zhang, T. Shao

Institute of Electrical Engineering, Chinese Academy of Sciences, Beijing, China

17:00 TU 2.1-4 PLASMA-CATALYTIC CONVERSION OF BIOGAS INTO HYDROGEN OVER NI-BASED BIMETALLIC CATALYSTS

D. Mei, X. Tu

Electrical Engineering and Electronics, University Liverpool, Liverpool, United Kingdom

17:15 TU 2.1-5 A PRELIMINARY STUDY FOR METHANE CONVERSION TO ACETYLENE ASSISTED BY AC ROTATING-GLIDING ARC PLASMA DISCHARGED IN PURELY HYDROGEN

D. K. Dinh^{1,2}, D. H. Lee^{1,2}, Y. H. Song^{1,2}

¹*University of Science and Technology (UST), Daejeon, South Korea*

²*Korea Institute of Machinery and Materials (KIMM), Daejeon, South Korea*

17:30 TU 2.1-6 ELECTRON ENERGY DISTRIBUTION FUNCTION AND RATE COEFFICIENTS IN FIELD EMISSION-DRIVEN TOWNSEND DISCHARGE REGIME

X. Tan, D. B. Go

University of Notre Dame, Notre Dame, IN, US

17:45 TU 2.1-7 PLASMA PHYSICS FOR HIGH THROUGHPUT WATER REUSE

S. Mujovic, J. E. Foster

Nuclear Engineering & Radiological Sciences, University of Michigan, Ann Arbor, MI, United States