



Eidgenössische Technische Hochschule Zürich
Swiss Federal Institute of Technology Zurich

Particle Technology Laboratory

Prof. Dr. Sotiris E. Pratsinis
Sonneggstrasse 3 ML F 13.1
8092 Zurich, Switzerland

Phone +41 44 632 31 80
Secretary +41 44 632 25 10
Telefax +41 44 632 15 95

pratsinis@ptl.mavt.ethz.ch
<http://www.ptl.ethz.ch>

Particle Technology Seminar HS16

Fridays 14-17h; ML F40

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| Sept. 23 | "Settling rate of agglomerated nanoparticles in water by Brownian dynamics simulations" <i>Anastasia Spyrogianni, PTL</i> |
| Sept. 30 | "Development of nanoparticles (NPs) for magnet, electrocatalyst, and photocatalyst" <i>Aditya F. Arif & Kikuo Okuyama, Thermal Fluid Engineering Lab., University of Hiroshima</i> |
| Oct. 7 | "Atomically Dispersed Pd on Ce/La-doped TiO ₂ Catalyst for Reverse Water Gas Shift Reaction" <i>Ping Shu Ho, planning presentation of SA thesis, ETHZ</i> |
| Oct. 14 | "Tailored selectivity of zeolitic membranes for gas sensing" <i>Sebastian Abegg, planning presentation of MS thesis, ETHZ</i> "FSP-made Quantum dots and TiO ₂ (B) for stereolithography 3D printing and other applications" <i>Keroles Riad, Concordia University, Canada</i> |
| Oct. 21 | "Detecting entrapped victims with portable sensors" <i>Nicolay Pineau, planning presentation of MS thesis, ETHZ</i> "Nanoparticle Collision Frequency and Efficiency from the Free Molecular to Continuum Regimes by Molecular Dynamics" <i>Vasil Vasilev, planning presentation of MS thesis, ETHZ</i> |
| Oct. 28 | "Effect of controlled food intake on fat burn monitoring with breath sensors" <i>Jonathan Theodore, planning presentation of MS thesis, ETHZ</i> "The Crystal Structure and Surface Composition of Ag-Au Nano-Alloys By Molecular Dynamics Simulations" <i>Eirini Goudeli, PTL</i> |
| Nov. 4 | "One-step synthesis of heterogenous nano-contrast agents for dual T1 / T2 magnetic resonance imaging via scalable flame spray pyrolysis" <i>Fabian Starsich, PTL</i> |
| Nov. 11 | "Nanogenerators with flame-made polycrystalline BaTiO ₃ nanoparticles" <i>Gian Schädli, PTL</i> |
| Nov. 18 | "Catalysis on one-size Au/FeO _x particles supported on TiO ₂ for NO reduction with CO" <i>Davide Stucchi, planning presentation of MS thesis, ETHZ</i> |
| Nov. 25 | "Monitored deposition of thin flame-made gas sensing films" <i>Christoph Blattmann, PTL</i> "Effect of Na on atomically dispersed Pd for low temperature WGS reaction" <i>Noha Abdelwahab, planning presentation of MS thesis, ETHZ</i> |
| Dec. 2 | "Effect of flame conditions on silanol content and cytotoxicity of aerosol-made SiO ₂ nanoparticles" <i>Anastasia Spyrogianni, PTL</i> |

- Dec. 9 "Theoretical Computational Modeling of Polymeric Systems at Equilibrium and Beyond"
Dr. Nikolaos Lempesis, MIT, USA
 "Atomically dispersed Pd on Ce-doped TiO₂ for Reverse Water Gas Shift Reaction"
Ping Shu Ho, final presentation of SA thesis, ETHZ
 "Coagulation of Polydisperse Primary Particles in the Transition and Continuum Regimes"
Samuel Wiget, final presentation of SA thesis, ETHZ
 "Atomically Dispersed Pd on Ce/La-doped TiO₂ Catalyst for Reverse Water Gas Shift Reaction"
Ping Shu Ho, final presentation of SA thesis, ETHZ
- Dec. 16 "Syngas/Hydrogen Production and Utilization: How operando SSITKA Combined with Other Transient Experiments Advance Catalyst Design"
Prof. Angelos M Efstathiou, Heterogeneous Catalysis Lab, University of Cyprus
 "A Journey Through the Material Science Groups at ETH: From Electrostatic Friction Damping to All-solid-state Li-ion Batteries"
Jan van der Broek
- Dec. 23 "Nanoparticle Collision Frequency and Efficiency by Molecular Dynamics"
Vasil Vasilev, midterm presentation of MS thesis, ETHZ
- Jan. 6 "Multifunctional nanoparticles for targeted theranostics"
ML E13 @1.15pm *Fabian Starsich, PTL*
 "Toward high performance oxide semiconductor gas sensors: New opportunities of p-type oxide semiconductors and novel strategy for humidity independent gas sensors"
Dr. Ji-Wook Yoon, Department of Materials Science & Engineering, Korea University
- Jan. 13 "Multi dimensional missionary work of Lillias Horton Underwood"
ML F38 @9.30pm *Prof. Meehyun Chung, Yonsei University*
- Jan 19 Thu "Aerosol Science Applications to Sensor and Energy Devices and Perovskite Solar Cell Research"
ML F40 @10am *Prof. Mansoo Choi, Dept. of Mechanical and Aerospace Eng., Seoul National University*
- Jan. 20 "Detecting entrapped victims with portable sensors"
ML E13 @1.15pm *Nicolay Pineau, mid-term presentation of MS thesis, ETHZ*
 "Highly selective gas sensors by zeolite membranes"
Sebastian Abegg, mid-term presentation of MS thesis, ETHZ
- Feb. 3 "The Au-Fe interaction and its influence on the catalytic performance for NO reduction with CO"
ML E13 @1.15pm *Davide Stucchi, mid-term presentation of MS thesis, ETHZ*
 "Si-doped α -MoO₃: oxygen defects and surface acidity for selective NH₃ sensing"
Mo Li, PTL
- Feb. 10 "From nanoparticles down to single atoms: Supported noble metal catalysts and their selectivity toward low temperature water gas shift reaction"
ML E13 @1.15pm *Noha Abdelwahab, mid-term presentation of MS thesis, ETHZ*
- Feb. 17 "Towards real-time acetone measurement during exercise with sensors"
ML E13 @3.15pm *Jonathan Theodore, mid-term presentation of MS thesis, ETHZ*