

Coolescence, LLC

Presented by Rick Cantwell

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Background

- Founded in 2005
 - Encouraged by 2004 DOE review & ICCF10
- Privately Funded by Angel Investor
- 2000 sq ft lab in Boulder CO, USA
- 3 research employees with engineering backgrounds
- Scientific consultants

Glow Discharge Loading

Work inspired by

- Karabut
- Savvatimova
- Claytor
- Miley
- Energetic Technologies (ICCF10, Dardik, et al)
- Cecil & Liu
- Passell & Benson
- Oates and Flanagan, Can. J. Chem., **53**, 694 (1975)

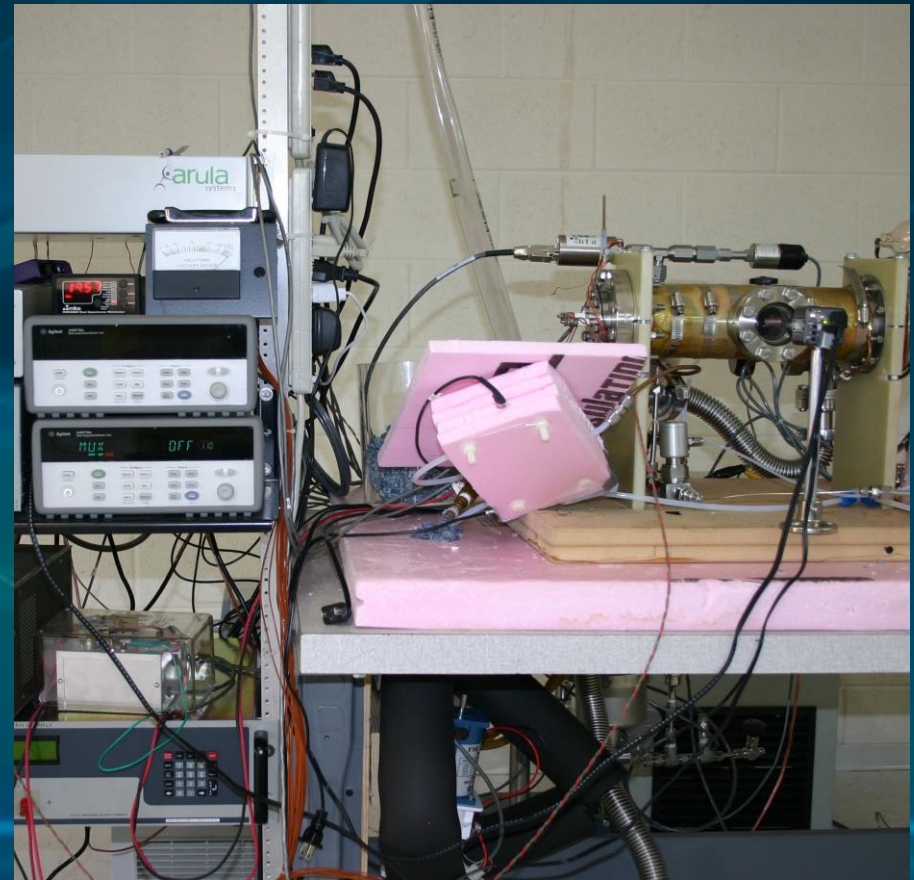
Pd and Pd alloy films

- Films prepared by Colorado School of Mines
- Vacuum deposition/co-deposition
- Vary surface morphology & alloy chemistry
- Inspired by
 - Miles & Imam



Lab Capabilities

- Flow Calorimeter Water
Jacketed vacuum chamber – Sensitivity
+/- 100mW
- Temperature Control -40 to
+200 deg C
- Vacuum to 1E-6
- Multiple chamber test stand
- Automated data collection
& video recording
- RGA



Research Roadmap

- Repeatable and accurate calorimetry
- Loading studies of Pd foils
- Materials work with CSM informed by theory
- Excess Heat
- Repeatability & performance



Thank You

- We appreciate the willingness of ISCMNS members to accept new researchers
- We appreciate the encouragement and advice we've received:
 - Ed Storms
 - Scott Little
 - Peter Hagelstein