



Online Low Temperature Plasma Seminars

Seminar Series 2020

May 12, 2020



Purpose

This seminar series is being held during this time of pandemic caused by COVID-19 to educate, inform, and connect the LTP community.





Organizing Committee

Chair: Mounir Laroussi, *Old Dominion University*

Mark Kushner, *University of Michigan*

Michael Keidar, *George Washington University*

Peter Bruggeman, *University of Minnesota*

Annemie Bogaerts, *University of Antwerpen*

Xinpei Lu, *Huazhong University of Science & Technology*

Katharina Stapelmann, *North Carolina State University*

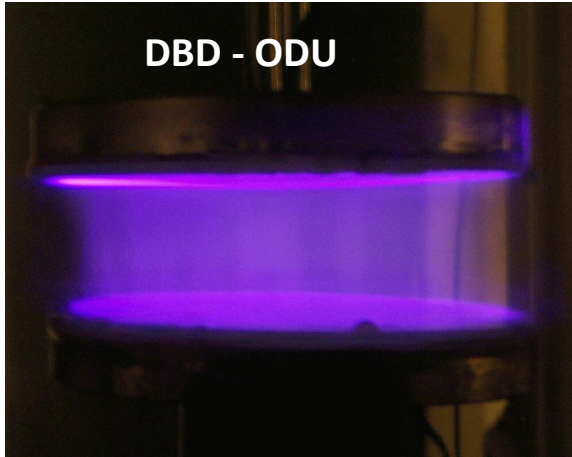
Ken Ostrikov, *Queensland University*

Yevgeny Raitses, *Princeton Plasma Physics Laboratory*

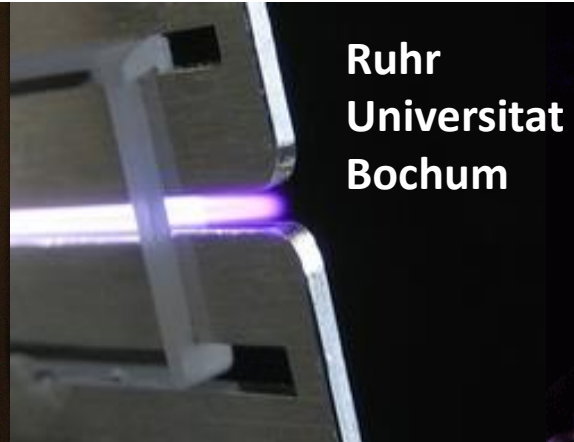
Sander Bokeschus, *INP Greifswald*



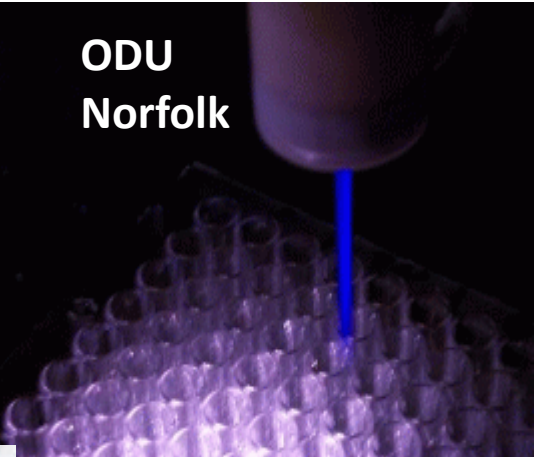
"Cold" plasma sources



DBD - ODU



Ruhr
Universität
Bochum



ODU
Norfolk



FE-DBD - Drexel
Treatment Target
the Floating Electrode



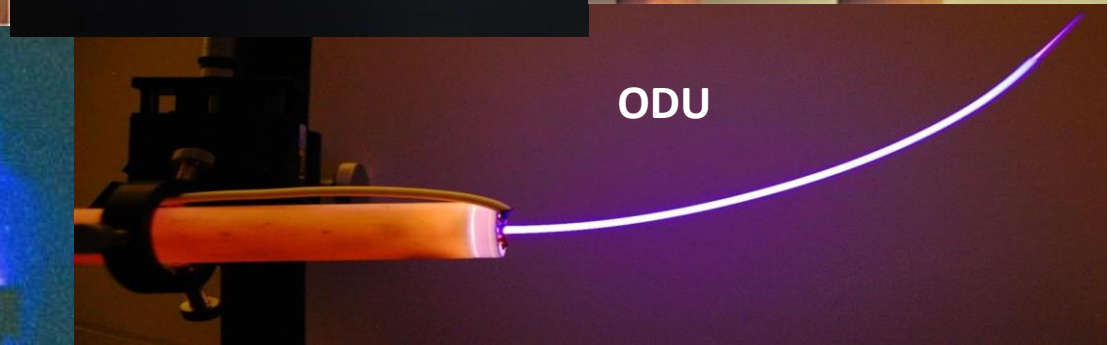
INP
Greifswald



HUST, China



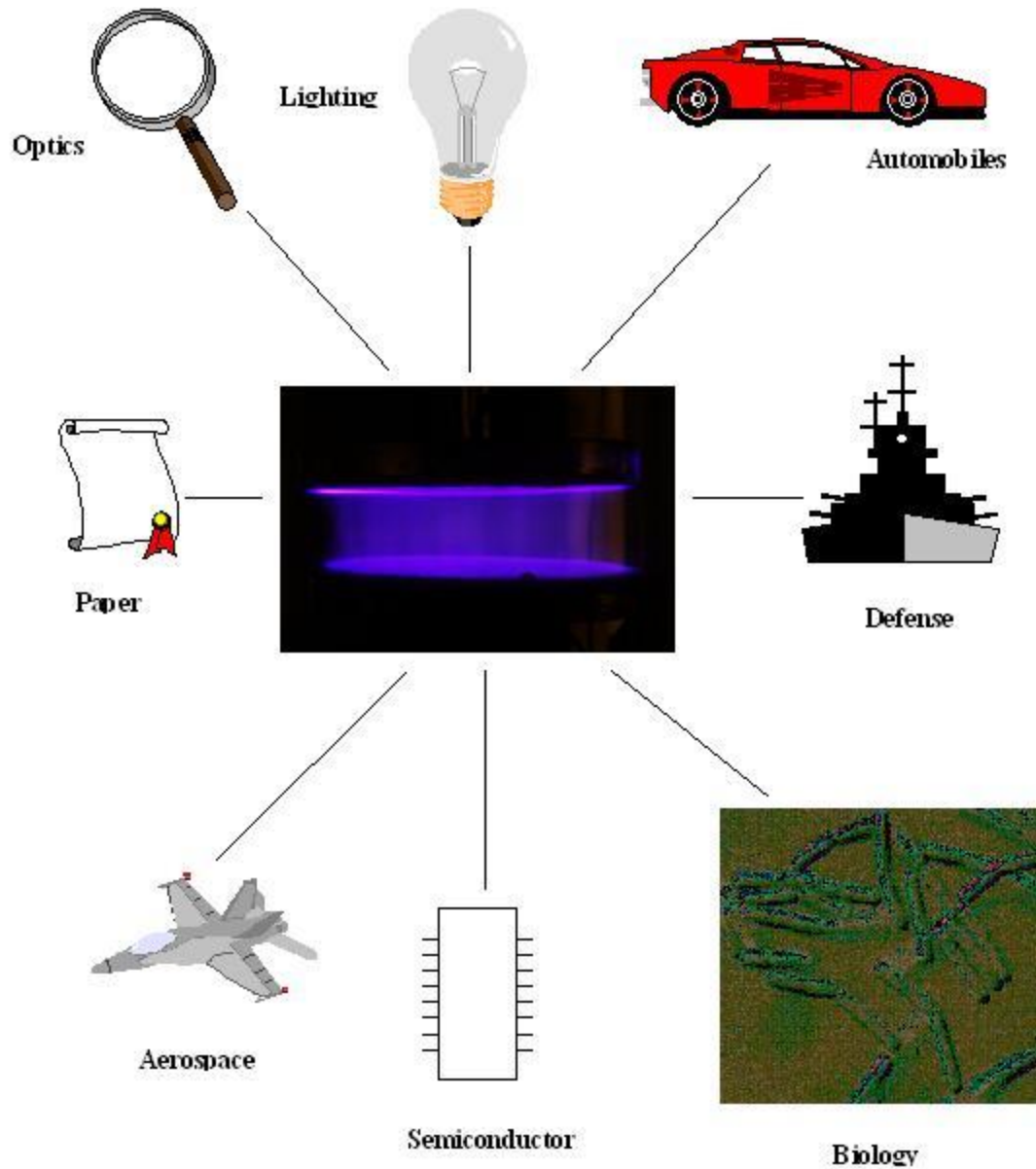
RBD - DC, 60/50 Hz ODU



ODU



Plasmas in Technology





WITHOUT LOW TEMPERATURE PLASMAS

Modern society would not be as technologically advanced because there would be NO...

- Laptops, cell phones, massively parallel computing.
- High performance jet engines (modern aviation industry)
- High efficiency lighting, lasers, LEDs, LCDs, flat panel displays
- High performance optics, coated eyeglasses, CCDs
- Solar cells
- Glass enclosed skyscrapers (enabled by heat reflecting coatings)
- Municipal scale ozone water purification
- Saran wrap (!) and nearly all hydrophilic plastics.
- Nanotechnology



Slide based on:
NSF_LTPSE_2015

May 12, 2020



**Thank you to all the speakers for
volunteering and giving of your time and
effort to participate in this seminar series
and render a worthy service to the LTP
community**



May 12, 2020





Note

The lectures are recorded and saved in the cloud. They are available for 30 days following the date of the lecture. This is for the benefit of our colleagues around the world who want to attend the lectures but cannot because of time difference or scheduling conflicts or other reasons. This way, these colleagues can access the lectures at their own convenient time.



Few Guidelines

- ❖ Please **mute** your audio during the talk
- ❖ Please wait to the end of the lecture to ask your questions
- ❖ The lecture is followed by 10-15 minutes for questions and discussion
- ❖ If you do not want your image or voice recorded then do not attend the lecture live. You can watch a recording at a later time.



Lecture is recorded

Lecture is recorded

Lecture 1

Speaker: **Prof. Aaron Mazzeo**

May 12, 2020