



POLYTECHNIQUE  
MONTRÉAL

LE GÉNIE  
EN PREMIÈRE CLASSE

Université   
de Montréal

• Phone: +1 514 348 1322

**James Diamond, PhD**

• Montréal, Québec

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## Education

- **Polytechnique Montreal, Montreal, QC, Canada** (since 2020)  
*Ph.D. Student, Department of Chemical Engineering*  
*Co-supervision with Université de Montréal, Department of Physics*
  
- **Université de Montréal, Montréal, Canada** (2018-2020)  
*M.Sc. Degree, Department of Physics*
  
- **Université de Montréal, Montréal, Canada** (2014-2018)  
*B.Sc. Degree, Department of Physics*

PhD Thesis: Microwave generated plasma for micro-particles treatment

## Research Interests

- Plasma
- Micro-particles plasma treatment
- Mineral processing

## Teaching Experience

- |   |                    |                 |
|---|--------------------|-----------------|
| • PHY 1441 - Électromagnétisme                        | Teaching Assistant | H19,A19,<br>H20 |
| • PHY 1651 – Mécanique Classique                      | Teaching Assistant | A18             |
| • PHY 1501 – Introduction à la physique expérimentale | Teaching Assistant | H21             |
| • PHY1902 – Électromagnétisme et optique              | Teaching Assistant | H17, A20        |
| • PHY1901 – Mécanique et physique moderne             | Teaching Assistant | H16, A16        |



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## Journal Publications

- Time-resolved imaging of pulsed positive nanosecond discharge on water surface: plasma dots guided by water surface, *Ahmad Hamdan, James Diamond, Luc Stafford, Plasma Sources Science and Technology, Volume 29, Number 11, 2020*
- Time and space-resolved imaging of an AC air discharge in contact with water, *James Diamond, Ahmad Hamdan, Jacopo Profili, Joelle Margot, Journal of Physics D: Applied Physics, Volume 53, Number 42, 2020*
- Pulsed nanosecond air discharge in contact with water: influence of voltage polarity, amplitude, pulse width, and gap distance, *Ahmad Hamdan, Daniel A Ridani, James Diamond, Rimeh Daghbir, Journal of Physics D: Applied Physics, Volume 53, Number 35, 2020*
- Characterization of Various Air Plasma Discharge Modes in Contact with Water and Their Effect on the Degradation of Reactive Dyes, *James Diamond, Jacopo Profili, Ahmad Hamdan, Plasma Chemistry and Plasma Processing, Volume 39, 2019*