2D MXenes
10 YEARS LATER

MXene Conference 2020
August 3\textsuperscript{rd} - 7\textsuperscript{th}, 2020
Drexel University, Philadelphia, PA, USA

Proceeded by MXene Synthesis and Characterization Courses on
July 27\textsuperscript{th} - 31\textsuperscript{th}, 2020.
Program

Monday, August 3rd, 2020

Topic: Synthesis, Structure, and Properties
Session Chair: Michel W. Barsoum, Drexel University, USA

8:00 AM EST – 9:30 AM EST
Opening Remarks:
A. Saunders, S. Walker, M. W. Barsoum, Drexel University, USA

Plenary Speaker:
Johanna Rosén – Linköping University, Sweden

9:30 AM EST – 11:30 AM EST
Keynote Speakers:
Mohammad Khazaei, NIMS, Japan
Qing Huang, NIMTE, CAS, China
Garritt Tucker, Colorado School of Mines, USA
Program

Tuesday, August 4th, 2020

**Topic: Electronic and Medical Applications**
**Session Chair:** Michael Naguib, Tulane University, USA

8:30 AM EST – 9:30 AM EST
**Plenary Speaker:**
Husam Alshareef, KAUST, Saudi Arabia

9:30 AM EST – 11:30 AM EST
**Keynote Speakers:**
Susan Sandeman, Brighton, UK
Thierry Ouisse, LMGP, INP-Grenoble, France
Lyubov Titova, WPI, USA

Wednesday, August 5th, 2020

**Topic: Chemistry-Processing-Properties Relationships**
**Session Chair:** Steven May, Drexel University, USA

8:00 AM EST – 9:30 AM EST
**Plenary Speaker:**
Michael Naguib, Tulane University, USA

9:30 AM EST – 11:30 AM EST
**Keynote Speakers:**
Babak Anasori, IUPUI, USA
Vadym Mochalin, Missouri Tech, USA
Miladin Radovic, Texas A&M, USA

11:30 AM EST – 12:15 PM EST
**Commercialization and Investment**
**Session Chair:** Shintaro Kaido, Drexel University, USA

Lynett Madsen, NSF, USA
Panel Discussion / Investors
Program

Thursday, August 6th, 2020

**Topic:** Energy Related Applications, from Modeling to Implementation  
**Session Chair:** Ekaterina Pomerantseva, Drexel University, USA

- 8:30 AM EST – 9:30 AM EST  
  **Plenary Speaker:** Paul Kent, Oak Ridge National Lab, USA

- 9:30 AM EST – 11:30 AM EST  
  **Keynote Speakers:**  
  - Pooi See Lee, Nanyang Tech. University, Singapore  
  - Aleksandra Vojvodic, University Penn, USA  
  - Majid Beidaghi, Auburn University, USA

Friday, August 7th, 2020

**Topic:** Applications of MXenes  
**Session Chair:** Yury Gogotsi, Drexel University, USA

- 8:00 AM EST – 9:30 AM EST  
  **Keynote Speakers:**  
  - Guoxiu Wang, UTS, Australia  
  - Chong Min Koo, KIST, Korea  
  - Bin Xu, BUCT, China

- 9:30 AM EST – 11:30 AM EST  
  **Future of MXene Research and Applications Panel**  
  **Panelists:**  
  - Takeshi Torita, Murata Manufacturing Co., Ltd., Japan  
  - Terrance Barkan, The Graphene Council, USA
Courses

Experienced researchers, industry professionals, and students are all welcome to partake in these in-depth courses preceding the MXene Conference.

### Cost:

- **$300 per course**
- **$500 for both courses**

### Registration Deadline:

July 24^{th}, 2020 at 5 PM EST

Register by Clicking Here

### MXenes Synthesis Course:

This course will introduce researchers to MXene synthesis best practices. Course attendees will receive detailed instruction as well as laboratory tutorials on how to synthesize MXenes. Participants will also learn about common mistakes encountered during MXene synthesis and receive course materials to guide their future research. This course is a great resource for researchers new to the MXene field as well as current MXene researchers who want to further advance their skill set.

**Schedule:** July 27^{th} and July 28^{th}, 2020 7:30 AM EST – 12 PM EST

### MXenes Characterization Course:

In this course, we will cover characterization of MXene powders, colloidal solutions, single flakes and films by Raman spectroscopy, electron microscopy, UV-vis, XPS and other techniques. Experienced researchers will teach you how to determine the quality, flake size, and delamination of MXenes on the example of Ti3C2. Sample preparation and elimination of measurement artifacts will be discussed in detail. Interpretation of Raman, UV-vis and XPS spectra of various MXenes will be provided. Bring your spectra and images and discuss them with our experts.

**Schedule:** July 29^{th} and July 30^{th}, 2020 7:30 AM EST – 12 PM EST
Total registered as of July 8th, 2020: 924

Statistics

Distribution by Country

- China: 250
- India: 200
- USA: 150
- UK: 100
- Pakistan: 50
- South Korea: 50
- Sweden: 50
- Egypt: 50
- Singapore: 30
- Turkey: 30
- Japan: 30
- Saudi Arabia: 30
- Germany: 30
- Ireland: 30
- France: 30
- Finland: 30
- Bangladesh: 30
- Iran: 30
- Australia: 30
- Canada: 30
- Other: 30

Number Registered as of July 8th, 2020

Distribution by Position (Sector)

- Faculty: 22.3%
- Student (Undergrad./Grad.): 45.38%
- Postdoc: 12.2%
- Industrial Researcher: 3.08%
- VC/Investor: 0.8%
- Government Officials: 0.23%
- Other: 16.08%