

# FACT SHEET 2022

## QUICK FACTS

### » Graduate Programs

Materials Science  
Materials Science & Engineering  
Polymer Science

### » Degrees Offered

M.S., MEng., Ph.D.

### » Students

>150 Graduate students  
perform research in IMS

### » Research Funding FY2018 -2019

\$18M New Awards  
\$16.7M Federal  
\$1.3M Non-Federal

### » Publications

228 Journal Publications in 2020/21

### » Industrial Affiliates Program

38 Member Companies  
>50 Industrial Sponsors

### » Faculty

43 (plus 4 emeriti) Housed in IMS  
130 Affiliated UConn Faculty

### » Staff

9 Administrative/Support Staff  
11 Scientific/Technical Staff

### » Alumni

>997 Total  
>351 Live in Connecticut

### » Institute Director

Dr. Steven L. Suib

Institute of Materials Science  
97 North Eagleville Road, Unit 3136  
Storrs, CT 06269-3136  
Phone: 860.486.4623  
Fax: 860.486.4745

[www.ims.uconn.edu](http://www.ims.uconn.edu)



### Research Instrumentation

The Institute houses a wide range of advanced research instruments and facilities. These include:

- atomic force microscopy
- computational modeling
- electron microscopy (SEM & TEM)
- gas chromatography
- high field characterization
- IR, Raman and UV spectroscopy
- laser spectroscopy
- nanobionics device fabrication facility, clean room
- NMR spectrometry
- optical microscopy
- polymer rheology
- surface analysis (AES & XPS)
- thermal analysis
- X-ray diffraction & spectroscopy (EDS, WDS, XRD, SAXS)

### Industrial Collaboration

The Institute supports the economic development of the state and the surrounding region by collaborating with local industry in three modes:

- Small fee-for-service projects where industry needs scientific/technical support beyond that available in commercial service laboratories.
- The Industrial Affiliates Program (Director: Dr. Paul Nahass, Associate Director: Dr. Hatice Bodugoz Senturk) – a subscription-based program of ≈40 companies having an ongoing working relationship with IMS.
- Large collaborative projects, often involving major federal support.

### Graduate Programs

IMS is a key resource for graduate research students from across engineering and the sciences. The programs for three graduate fields of study are based within the Institute.

#### 1. Materials Science

This is a flexible interdisciplinary program with input from the Departments of: Chemical and Biomolecular Engineering, Chemistry, Electrical and Computer Engineering, Materials Science and Engineering, Mechanical Engineering, Molecular and Cell Biology, and Physics. (Program Lead: Dr. Steven L. Suib)

#### 2. Materials Science and Engineering

This program is offered through the Department of Materials Science and Engineering in the School of Engineering and concerns the production, processing, characterization, selection, design and modeling of materials. (Program Lead: Dr. Bryan Huey)

#### 3. Polymer Science

This interdisciplinary graduate program has faculty from the Departments of: Chemical and Biomolecular Engineering, Chemistry, Molecular and Cell Biology, and Physics. Areas of particular interest include: polymer synthesis and properties, composites, biomaterials, devices, and computation. (Program Lead: Dr. Luyi Sun)

# FACT SHEET 2022

## IMS Associated Faculty

### Biomedical Engineering

Dr. Yupeng Chen  
Dr. Ki Chon  
Dr. Alix Deymier  
Dr. Bin Feng  
Dr. Martin Han  
Dr. Kazunori Hoshino  
Dr. Cato T. Laurencin  
Dr. Tannin Schmidt  
Dr. Sina Shahbazmohamadi  
Dr. Wendy Vanden Berg-Foels  
**Dr. Yi Zhang**  
Dr. Guoan Zheng

### Center for Clean Energy Engineering

Dr. Naba Karan

### Chemical & Biomolecular Engineering

Dr. George M. Bollas  
**Dr. Kelly A. Burke**  
Dr. Cato T. Laurencin  
Dr. Yu Lei  
Dr. W. K. Anson Ma  
Dr. Jeffrey R. McCutcheon  
**Dr. Mu-Ping Nieh**  
**Dr. Yang Qin**  
Dr. Leslie Shor  
**Dr. Luyi M. Sun**  
Dr. Julia A. Valla

### Chemistry

**Dr. Douglas H. Adamson**  
Dr. Alfredo Angeles-Boza  
**Dr. Alexandru D. Asandei**  
Dr. José Gascón  
Dr. Jie He  
**Dr. J. Nathan Hohman**  
**Dr. Rajeswari Kasi**  
Dr. Challa V. Kumar  
**Dr. Yao Lin**  
Dr. Tomoyasu Mani  
**Dr. Fotios Papadimitrakopoulos**  
Dr. Eugene Pinkhassik  
Dr. Rebecca Quardokus  
Dr. Jessica Rouge  
Dr. James F. Rusling  
**Dr. Thomas A. P. Seery**  
**Dr. Gregory Sotzing**  
**Dr. Steven L. Suib**  
Dr. Jing Zhao

### Civil & Environmental Engineering

Dr. Maria Chrysochoou  
Dr. Shinae Jang  
Dr. Jeong-Ho Kim  
Dr. Baikun Li  
Dr. Ramesh Malla  
**Dr. Vahid Morovati**  
Dr. Kay Wille  
Dr. Arash E. Zaghi  
Dr. Wei Zhang

### Electrical & Computer Engineering

Dr. Rajeev Bansal  
Dr. Necmi Biyikli  
**Dr. Yang Cao**  
Dr. Ali Gokirmak  
Dr. Faquir C. Jain  
Dr. Helena Silva

### Geosciences

Dr. Tracy D. Frank

### Marine Sciences

Dr. Heidi M. Dierssen  
Dr. J. Evan Ward

### Materials Science & Engineering

**Dr. Mark Aindow**  
Dr. S. Pamir Alpay  
Dr. Harold D. Brody  
**Dr. Avinash M. Dongare**  
**Dr. Lesley Frame**  
**Dr. Pu-Xian Gao**  
**Dr. Rainer J. Hebert**  
**Dr. Bryan D. Huey**  
**Dr. Jasna Jankovic**  
Dr. Theodoulos Z. Kattamis  
Dr. Cato T. Laurencin  
**Dr. Seok-Woo Lee**  
Dr. Radenka Maric  
**Dr. Serge M. Nakhmanson**  
**Dr. Volkan Ortalan**  
Dr. George A. Rossetti Jr.  
**Dr. Xueju "Sophie" Wang**  
**Dr. Yuanyuan Zhu**

### Mechanical Engineering

Dr. Osama Bilal  
Dr. Baki Cetegen  
Dr. Wilson K. S. Chiu  
Dr. Farhar Imani  
Dr. SeungYeon Kang  
Dr. Kazem Kazerounian  
Dr. Kyungjin Kim  
Dr. Ying Li  
Dr. George Lykotraftitis  
Dr. Thanh D. Nguyen  
Dr. Julián A. Norato  
Dr. Ugur Pasaogullari  
Georges Pavlidis  
Dr. David M. Pierce  
Dr. Anna Tarakanova  
Dr. Savas Tasoglu  
Dr. Dianyun Zhang

### Molecular & Cell Biology

Dr. James L. Cole  
Dr. Charles Giardina  
Dr. Kenneth M. Noll  
Dr. Victoria L. Robinson  
Dr. Carolyn M. Teschke

### Nutritional Sciences

Dr. Yangchao Luo

### Pathobiology

Dr. Mazhar I. Khan

### Pharmaceutical Sciences

Dr. Robin H. Bogner  
Dr. Diane J. Burgess  
Dr. Bodhisattwa Chaudhuri  
Dr. Debra A. Kendall  
Dr. Na Li  
Dr. Xiuling Lu

### Physics

Dr. Alexander Balatsky  
**Dr. Elena E. Dormidontova**  
Dr. Niloy Dutta  
Dr. Gayanath W. Fernando  
Dr. George Nicholas Gibson  
Dr. Phillip L. Gould  
**Dr. Jason Hancock**  
**Dr. Menka Jain**  
Dr. Richard T. Jones  
Dr. Jeffrey S. Schweitzer  
Dr. Boris Sinkovic  
Dr. Ilya Sochnikov  
**Dr. Barrett O. Wells**

### Physiology and Neurobiology

Dr. Linnaea Ostroff

### Plant Science & Landscape Architecture

Dr. Cristian P. Schulthess

### UConn Health

Dr. Douglas J. Adams  
Dr. A. Jon Goldberg  
Dr. J. Robert Kelly  
Dr. Yusuf Khan  
Dr. Insoo Kim  
Dr. Liisa Tiina Kuhn  
Dr. Sangamesh Kumbar  
Dr. Cato T. Laurencin  
Dr. Wai Hong (Kevin) Lo  
Dr. Lakshmi S. Nair  
Dr. Syam Nukavarapu

### Emeritus/Retired Faculty

Dr. Thomas Anderson  
Dr. William F. Bailey  
Dr. Robert R. Birge  
Dr. Joseph I. Budnick  
Dr. C. Barry Carter  
Dr. Anthony DiBenedetto  
Dr. Harry Frank  
Dr. Norman Garrick  
Dr. Maurice Gell  
Dr. Douglas S. Hamilton  
Dr. William Hines  
Dr. Eric H. Jordan  
Dr. Devendra Kalonia  
Dr. Lawrence A. Kappers  
Dr. Quentin Kessel  
Dr. James Knox  
Dr. Matthew Mashikian  
Dr. Richard S. Parnas  
Dr. Douglas Pease  
Dr. Donald Potter  
Dr. Wolf-Dieter Reiter  
Dr. Daniel A. Scola  
Dr. Montgomery T. Shaw  
Dr. Winthrop W. Smith  
Dr. William C. Stwalley  
Dr. Chong Sook P. Sung  
Dr. Geoff Taylor

IMS resident faculty are indicated in bold