# NANO KOREA 2020

# July 1~3, KINTEX, Korea

# **Yury Gogotsi**

Charles T. and Ruth M. Bach Distinguished University Professor, Department of Materials Science and Engineering, Drexel University

Address: 3141 Chestnut Street, CAT 383, Philadelphia, PA 19104

Web: http://www.nano.materials.drexel.edu

### **EDUCATION**

National Academy of Sci., Ukraine	D.Sc.	Materials Engineering	1995
Kiev Polytechnic Institute, Ukraine	Ph.D.	Physical Chemistry	1986
Kiev Polytechnic Institute, Ukraine	M.S.	Metallurgy	1984

#### **PROFESSIONAL ACTIVITIES**

- Drexel University, Dept. of Materials Science and Engineering
- Charles T. and Ruth M. Bach Endowed Professor (05/2017 present)
- Distinguished University Professor (10/2010–05/2017)
- Trustee Chair Professor of Materials Science and Engineering (09/2008 present)
- Director, A.J. Drexel Nanomaterials Institute (DNI), (02/2003 present)
- Professor of Chemistry (courtesy appointment), (09/2002 present)
- Associate Dean of the College of Engineering (12/2002 9/2007)
- Professor of Mechanical Eng. and Mechanics (courtesy appointment), (11/2001–present)
- Professor of Materials Science and Engineering (08/2000 –08/2008)
- University of Illinois at Chicago, Dept. of Mechanical Engineering (10/1996-9/2000)
- University of Tübingen, Germany, Research Scientist (1995-1996)
- <u>Guest Professorships:</u> ORNL; University of Rome; Huazhong University; Dalian University of Technology; Paul Sabatier University; University of Limoges, KAIST

## SELECT AWARD AND HONORS

- 2018 Fellow, The International Society of Electrochemistry
- 2018 Tis Lahiri Memorial Lecture, Vanderbilt University
- 2017 Energy Storage Materials Award (Elsevier)
- 2017 Honorary Doctorate, Frantsevich Inst., National Academy of Sciences, Ukraine
- 2016 Nano Energy Award (Elsevier)
- 2016 Drexel Award for Outstanding Career Scholarly Achievement
- 2016 Included in 100 Most Cited Researchers in Materials Science by Elsevier/Scopus
- 2015 RUSNANOPRIZE 2015 (International Nanotechnology Prize)
- 2015 Fellow, Royal Society of Chemistry
- 2015 Lee Hsun Award Lecture, Institute of Metal Research, CAS, China
- 2014 Doctor Honoris Causa, Paul Sabatier University, Toulouse, France
- 2014 Highly Cited Researcher, Thomson-Reuters (again in 2015-2017)
- 2014 Fred Kavli Distinguished Lectureship in Nanotechnology, MRS Spring Meeting
- 2014 ASM Liberty Bell Chapter's Delaware Valley Materials Person of the Year
- 2014 Research Achievement Award, Department of Materials Science, Drexel University
- 2013 Ross Coffin Purdy Award from the American Ceramic Society
- 2012 European Carbon Association Award
- 2011 NANOSMAT Prize at the 6th NANOSMAT Conference
- 2011 ASM International Philadelphia Chapter Albert Sauveur Lecture Award
- 2011 Fellow, Materials Research Society

# NANO KOREA 2020

## July 1~3, KINTEX, Korea

- 2010 Chang Jiang Scholar Award, Ministry of Education of P.R. China
- 2009 Fellow, American Association for Advancement of Science (AAAS)
- 2008 Fellow, The Electrochemical Society
- 2006 Nano 50TM Award from NASA Tech Briefs Magazine, Innovator of the Year
- 2006 Best Paper Award, American Society for Composites
- 2005 Fellow, American Ceramic Society; 2005 Fellow, The World Innovation Foundation
- 2005 Drexel University College of Engineering Outstanding Research Award
- 2004 Academician, World Academy of Ceramics
- 2003 R&D 100 Award from R&D Magazine (awarded again in 2009)
- 2003 Roland B. Snow Award from the ACS (also in 2005, 2007, 2012, 2013)
- 2002 S. Somiya Award from the International Union of Materials Research Societies
- 2002 G.C. Kuczynski Prize from the International Institute for the Science of Sintering
- 2002 Full Member, International Institute for the Science of Sintering
- 2002 Research Achievement Award from Drexel University (awarded again in 2009)
- 2002-2004 106 Club of Drexel University (more than \$1M external funding per year)

### **MAIN SCIENTIFIC PUBLICATION**

2 books co-authored, 13 books edited, 16 book chapters, more than 600 papers in peer-reviewed journals, about 100 papers in conference proceedings, more than 60 patents filed (more than 10 licensed to industry), over 300 plenary, keynote and invited lectures and seminars. Cited over 100,000 times and currently has an H-index of 147 (Google Scholar), 127 (Web of Science).

- 1. B Anasori, MR Lukatskaya, Y Gogotsi, 2D Metal Carbides and Nitrides (MXenes) for Energy Storage, *Nature Rev. Materials* 2 (2), 16098 (2017)
- 2. M. R. Lukatskaya, O. Mashtalir, C. E. Ren, Y. Dall'Agnese, P. Rozier, P.-L. Taberna, M. Naguib, P. Simon, M. W. Barsoum, Y. Gogotsi, Cation Intercalation and High Volumetric Capacitance of Two-dimensional Titanium Carbide, *Science*, **341** (6153), 1502-1505 (2013)
- 3. O. Mashtalir, M. Naguib, V. N. Mochalin, Y. Dall'agnese, M. Heon, M. W. Barsoum, Y. Gogotsi, Intercalation and Delamination of Layered Carbides, *Nature Comm.*, **4**, 1716 (2013)
- 4. P. Simon, Y. Gogotsi, Capacitive Energy Storage in Nanostructured Carbon-Electrolyte Systems, *Acc. Chem. Res.* **46** (5) 1094–1103 (2013
- 5. Y. Gogotsi, P. Simon, True Performance Metrics in Electrochemical Energy Storage, *Science*, **334**, 917-918 (2011)
- 6. J. Chmiola, C. Largeot, P.-L. Taberna, P. Simon, Y. Gogotsi, Monolithic Carbide-Derived Carbon Films for Micro-Supercapacitors, *Science*, **328**, 480-483 (2010)
- 7. D. Pech, M. Brunet, H. Durou, P. Huang, V. Mochalin, Y. Gogotsi, P.-L. Taberna and P. Simon, Ultrahigh power electrochemical micro-capacitors based on onion-like carbon, *Nature Nanotechnology* 5, 651-654, (2010)
- 8. C. Largeot, C. Portet, J. Chmiola, P.-L. Taberna, Y. Gogotsi and P. Simon\*, Relation between the Ion Size and Pore Size for an Electric Double-Layer Capacitor, *J. Am. Chemical Society* **130**, 2730 -2731 (2008)
- 9. J. Chmiola, C. Largeot, P.-L. Taberna, P. Simon, Y. Gogotsi, Desolvation of ions in subnanometer pores, its effect on capacitance and double-layer theory, *Angewandte Chemie Int. Edition* **47** (18), 3392-3395 (2008)
- 10. P. Simon, Y. Gogotsi, Materials for Electrochemical Capacitors, *Nature Materials* 7(11) 845-854 (2008).

### **RESEARCH INTERESTS**

- 2D Carbides, Nitrides and Carbonitrides (MXenes)
- Nanomaterials for Energy, Water and Health Applications
- Chemistry of Nanostructured Carbons (nanotubes, onions, graphene, nanodiamond, CDC)
- Use of Raman Spectroscopy in Materials Research
- Nanocomposites