

**CURRICULUM VITA**



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**PROFESSIONAL INTEREST**

Multidisciplinary research and teaching that are focused on materials science and engineering, including the development of materials for technological needs that relate to the electronic, communication, security, transportation, aircraft, environmental and civil infrastructure industries.

**EXPERIENCE**

UNIVERSITY AT BUFFALO, THE STATE UNIVERSITY OF NEW YORK, Buffalo, NY

- \*Professor of Mechanical and Aerospace Engineering (1986-present)
- \*National Grid (formerly Niagara Mohawk Power Corp.) Endowed Chair Professor, named in 1991.
- \*Founding Director, Composite Materials Research Laboratory, founded in 1989.

CARNEGIE-MELLON UNIVERSITY, Pittsburgh, PA

- \*Associate Professor of Metallurgical Engineering and Materials Science (1982-1986)
- \*Assistant Professor of Metallurgical Engineering and Materials Science and Electrical Engineering (1977-1982)

MASSACHUSETTS INSTITUTE OF TECHNOLOGY, Cambridge, MA

- \*Research Assistant in the Department of Materials Science and Engineering and the Department of Electrical Engineering and Computer Science (1974-1977)
- \*Visiting Scientist at the Francis Bitter National Magnet Laboratory - Research on graphite intercalation compounds in collaboration with Professor M.S. Dresselhaus

\*Teaching Assistant in the Department of Materials Science and Engineering (1973-1974)

CALIFORNIA INSTITUTE OF TECHNOLOGY, Pasadena, CA

\*Research Assistant in the Division of Engineering and Applied Science: Research on superconducting alloys and amorphous materials under the supervision of Professor Pol E. Duwez and Dr. C.C. Tsuei

## EDUCATION

MASSACHUSETTS INSTITUTE OF TECHNOLOGY, Cambridge, MA

Ph.D. Degree in Materials Science, 1977

Thesis on "The Electronic, Lattice and Structural Properties of Graphite Intercalation Compounds" under the supervision of Professor M.S. Dresselhaus

S.M. Degree in Materials Science, 1975

Thesis on "Optical Studies of Graphite Intercalated with Bromine" under the supervision of Professor M.S. Dresselhaus

CALIFORNIA INSTITUTE OF TECHNOLOGY, Pasadena, CA

M.S. Degree in Engineering Science, 1973

Curriculum in computer science, applied mathematics and electrical engineering

B.S. Degree in Engineering and Applied Science, 1973

Graduated with Honor. Broad curriculum in physics, chemistry, electrical engineering, mathematics and computer science. Transferred from Wellesley College, Wellesley, MA (1970-71)

ROYAL SCHOOLS OF MUSIC, England

Licentiate of the Royal Schools of Music (L.R.S.M.), piano (performance), 1971.

## HONORS

Honorary Doctorate Degree, University of Alicante, Alicante, Spain, 2011.

Guest Professor, Tongji University, Shanghai, P.R. China, appointed in 2010.

Top Reviewer in 2008, an international award in relation to the journal Carbon, Elsevier Pub., 2009.

Special Recognition Award, The American Carbon Society, 2007.

Hsun Lee Award, jointly awarded by Institute of Metal Research (Chinese Academy of Sciences) and Shenyang National Laboratory for Materials Science, to recognize research accomplishment in materials science and technology, 2005.

Invited Professor, Tianjin University, Tianjin, P.R. China, appointed in 2005.

Visiting Professor, Jinan University, Jinan, P.R. China, appointed in 2005.

**The Charles E. Pettinos Award, a triennial international award to recognize one person or one group for outstanding research accomplishments in carbon science and technology, The American Carbon Society, 2004.**

Chancellor's Award for Excellence in Scholarship and Creative Activities, Academic Year 2002-2003, The State University of New York.

Visiting Professor, Wuhan University of Technology, Wuhan, P.R. China, appointed in 2002.

Visiting Professor, Southeast University, Nanjing, P.R. China, appointed in 2002.

Visiting Professor, Beijing Technology and Business University, Beijing, P.R. China, appointed in 2002.

Outstanding Inventor, State University of New York, 2002.

Fellow, American Carbon Society, conferred in 2001.

Honorary Professor, Shantou University, Shantou, Guangdong, P.R. China, appointed in 2000.

One of the top ten inventors in 1998, 24<sup>th</sup> Annual Inventor of the Year Award, Niagara Frontier Intellectual Property Law Association and the Technical Societies Council of the Niagara Frontier, 1999.

Fellow, ASM International, conferred in 1998.

Advisory Professor, Harbin Institute of Technology, Harbin, P.R. China, appointed in 1995.

"Teacher of the Year", 1992-93, awarded by Tau Beta Pi (New York Nu).

Recipient of the Niagara Mohawk Power Corp. Endowed Chair Professorship in Materials Research, University at Buffalo, State University of New York, 1991.

Recipient of the Ralph R. Teeter Educational Award, Society of Automotive Engineers, 1987, for being one of the top engineering educators in the U.S.

Recipient of the Robert Lansing Hardy Gold Medal for the most promising metallurgist in the U.S. in 1980, American Institute of Mining, Metallurgical, and Petroleum Engineers

Recipient of the Ladd Award for one of the most promising engineering faculty members in Carnegie-Mellon University, 1979

Inventor of the inventions "Exfoliated Graphite Fibers," "Carbon Fiber Reinforced Superconductor" and "Carbon Fiber Composites with Improved Fatigue Resistance", which were selected by the National Institute of Standards and Technology for funding through the Energy-Related Inventions Program of the Department of Energy.

Included in  
 Empire Who's Who Among Executives and Professionals, 2006  
 ISIHighlyCited.com  
 Who's Who in the World, since 2006  
 Who's Who in America, 61st Ed.  
 Who's Who in Engineering, since 1983  
 Who's Who in Science and Engineering, since 1995  
 Who's Who Among American Inventors, since 1990  
 Who's Who in the East, since 1983  
 American Men and Women of Science, since 1979  
 Who's Who in Technology Today, since 1979  
 Foremost Women of the Twentieth Century, since 1985  
 The World Who's Who of Women, 7th Ed.  
 Personalities of American, 3rd Ed.  
 Who's Who in Frontiers of Science and Technology  
 Who's Who in American Education  
 Who's Who Among Young American Professionals, 1992-1993  
 Who's Who of American Women, 17th Ed. onward  
 Two Thousand Notable American Women, 5th Ed., 1993  
 The Directory of Distinguished Americans, 3rd Ed.  
 Who's Who Among American Teachers & Educators, 11<sup>th</sup> Ed., 2007.  
 Who's Who in Finance and Business, 36<sup>th</sup> Ed., 2007.  
 Who's Who in Music, 1989  
 Most Admired Men and Women of the Year, since 1993

Who's Who in Among Asian Americans, 1993  
 International Who's Who of Professional & Business Women, 7th Ed., 2000  
 Who's Who in Registry of Business Leaders, 1994  
 2000 Notable American Women, Millennium Edition, 2000, 2002  
 World Who's Who of Women, 15<sup>th</sup> Ed., 2000  
 1000 World Leaders of Scientific Influence, 2001  
 500 Leaders of Science, 2002, 2003  
 Strathmore's Who's Who, 2002-2003  
 Who's Who in Science and Engineering, 8th Ed., 2005-2006  
 Montclair Who's Who Among Collegiate Faculty, 2011

One of the four first woman graduates of California Institute of Technology, 1973

Winner of Josephine de Karman Fellowship (1972-73) for graduate and senior undergraduate students of exceptional ability

Winner (2nd place) of the piano solo competition (Brahm's intermezzi) in the Hong Kong Music Festival, 1970

### **MEMBERSHIPS**

Member, American Carbon Society, 1979-present; Advisory Board member, 1999-2005; Fellow, 2001-present.

Member, ASM International, 1986-present; Director of Buffalo Chapter, 1987-1994; Member of Superconductor Materials Committee, 1989-1993; Fellow, 1998-present.

Member, Society for the Advancement of Material and Process Engineering, 2007-present.

Member, Materials Research Society, 1981-present.

Member, TMS/AIME (The Metallurgical Society of the American Institute of Mining, Metallurgical, and Petroleum Engineers, Inc.), 1977-1994 and 1999. Executive Committee Member of the Three-Rivers Section of TMS-AIME, 1986. Member of the Membership Development Committee (national) of TMS-AIME, 1986-1988.

Member, Society of Automotive Engineers, 1987-1989

Member, American Ceramic Society, 1989-1990, 1994.

Member, The Electrochemical Society, Inc., 2000.

Member, American Concrete Institute, 1989-1990, 1994-1996.

Member, American Physical Society, 1977-1987.

Member, American Chemical Society, 1979-1983.

Member, North American Thermal Analysis Society, 1979-1983; Chairman of Publications, 1983.

Member, International Confederation for Thermal Analysis, 1982.

Member, Spectroscopy Society of Pittsburgh, 1985-1993.

Inventor, Upstate Alliance for Innovation, 2001-present.

### **OTHER PROFESSIONAL ACTIVITIES**

\* Consultant to the Division of Materials Science, Research and Development Center, Westinghouse Electric Corporation, Pittsburgh, PA, 1978.

\* Consultant to Semiconductor Research, Research and Development Center, Westinghouse Electric Corporation, Pittsburgh, PA, 1983.

- \*Consultant to the International Advisory Panel and The Chinese Review Commission of the Chinese Ministry of Education, People's Republic of China, 1984.
- \* Consultant to the General Technology Division, IBM, Endicott, NY 1984.
- \* Consultant to the Electro-Physics Section, NASA Lewis Research Center, Cleveland, OH, 1985.
- \* Reviewer for the following journals: ACI Mater. J., Journal of American Ceramic Society, Carbon, Cem. Concr. Res., Materials Science and Engineering, Met. Trans., Synthetic Metals, Thin Solid films, J. Electrochem. Soc., J. Appl. Phys., J. Am. Chem. Soc., J. Mater. Res., J. Mater. Sci., Composites Part A, Smart Mater. Struct., J. Electron. Mater., J. Electron. Packaging, Composite Interfaces, Polymer Composites, Fuel, Sensors & Actuators, Composites Sci. Tech., Polymers & Polymer Composites, Polymer Eng. Sci., Mater. Lett., Computational Materials Science, Composites Science and Technology, Nanotechnology, Physica Status Solidi, Macromolecular Materials & Engineering, Computational Materials Science, Physics and Chemistry of Solids, J. Composite Materials, Journal of Intelligent Material Systems and Structures, Journal of Strain Analysis.
- \* Editor of NATAS Notes, 1983; Assistant Editor of NATAS Notes, 1982.
- \* Contributing Member of the Honorary Educational Advisory Board of the American Biographical Institute.
- \* Chairman, Symposium on Intercalated Materials, 12th North American Thermal Analysis Society Conference, Williamsburg, VA, September 29, 1983.
- \* Invited participant, International Symposium on Graphite Intercalation Compounds, Tsukuba Science City, Japan, May 27-30, 1985.
- \* Invited participant, Commercialization Planning Workshop sponsored by the U.S. Department of Energy, Washington, D.C., January 15-18, 1986.
- \* Director, Short Course on Modern Experimental Techniques in Materials Research, in Conjunction with the Pittsburgh Conference and Exposition, March 14, 1986.
- \* Invited Specialist of United Nations Development Program to assist the technical development of the People's Republic of China, July 16 - August 5, 1986.
- \* Director, Short Course on Carbon Science and Technology, State University of New York, Buffalo, NY, April 23, 1987.
- \*Member, Committee on Materials for High Density Electronic Packaging, National Materials Advisory Board, Commission on Engineering and Technical Systems, National Research Council, 1987-1990.
- \* Member, Panel for selection of Presidential Young Investigators, Division of Materials Research, National Science Foundation, November 23, 24, 1987.
- \* Chairman, Symposium on Carbon Fibers and Composites, sponsored by American Carbon Society, Buffalo, NY, July 18-21, 1988.
- \* Chairman, 7th Joint Symposium on Materials Science and Engineering, sponsored by ASM International, Buffalo Chapter, Buffalo, NY, July 22, 1988; Chairman, 11th Joint Symposium on Materials Science and Engineering, sponsored by ASM International, Buffalo Chapter, Buffalo, NY, June 5, 1992.
- \* Topical Area Chairman, 19th Biennial Conference on Carbon, sponsored by American Carbon Society, Pennsylvania State University, June 25-30, 1989.
- \* Member, Organizing Committee, Western New York Science Forum, 1989.
- \* Consultant to Stewart Lake Resources Inc., Ontario, Canada, 1989-1991.
- \* Symposium Organizer, Symposium on Mechanical Behavior of Electronic Materials and Structures in Microelectronics, Material Research Society Meeting, Anaheim, April 1991.

- \* Conference Chairman, Conference on Materials for Electronic Packaging, SUNY/ Buffalo, August 20-22, 1991.
- \* Conference Chairman, 21st Biennial Conference on Carbon, sponsored by American Carbon Society, SUNY/ Buffalo, June 13-18, 1993.
- \* Consultant to National Power PLC, UK, 1995-96.
- \* Topical Area Chairman, 23rd Biennial Conference on Carbon, sponsored by American Carbon Society, Pennsylvania State University, July 13-18, 1997.
- \* Member, Proposal Review Panels, National Science Foundation, November 1997-present.
- \* Technical Co-Chair and Member of International Advisory Board, 5th International Conference on Composites Engineering, Las Vegas, NV, July 5-11, 1998.
- \* Consultant, Enidine Inc., Orchard Park, NY, 1998.
- \* Consultant, Process Technologies, Inc., Orchard Park, NY, 1998-1999.
- \* Consultant, Occidental Chemical Corp., Grand Island, NY, 1998
- \* Topical Area Chairman, 24<sup>th</sup> Biennial Conference on Carbon, sponsored by American Carbon Society, Charleston, SC, July 11-16, 1999.
- \* Member, International Editorial Board, New Carbon Materials (China), 1999- present
- \* Member, Honorary Editorial Advisory Board, Carbon, 2001-present.
- \* Member, Advisory Board, Carbon Letters (formerly Carbon Science) (Korea), 2007-present.
- \* Member, International Editorial Board, Polymers & Polymer Composites, 2001-present
- \* Member, Advisory Board, American Carbon Society, 1999-2006.
- \* Judge, 24<sup>th</sup> Annual Inventor of the Year Awards, Niagara Frontier Intellectual Property Law Association and the Technical Societies Council of the Niagara Frontier, 1999.
- \* Consultant, Delphi, Lockport, NY, 2000.
- \* Expert witness for various court cases, 1990-present.
- \* Voting member, American Concrete Institute Committee 522 on Pervious Concrete, 2001-2006.
- \* Member, International Advisory Committee, 2002 International Conference on Carbon, Beijing, China, Sept. 15-20, 2002.
- \* Invited participant, Scientists Helping America Conference, US Special Operations Command and DARPA, Naval Research Laboratory, Washington, D.C., Mar. 11-13, 2002
- \* Member, Local Scientific Committee, 14th International Conference on Composite Materials, San Diego, July 14-18, 2003.
- \* Topical Area Chairman, Carbon 2004 International Conference, Providence, RI, July 11-16, 2004.
- \* Session Organizer, 5<sup>th</sup> International Conference in Construction Materials, Vancouver, B.C, Canada, August 22-24, 2005.
- \* External Reviewer for Research Grants Council, Hong Kong, 2001-present.
- \* External Reviewer for State Natural Science Award, China, 2006.

- \* Nominator, Kyoto Prize, Inamori Foundation, Kyoto, Japan, 2007 and 2011.
- \* Member, International Advisory Committee, World Conference on Carbon, Biarritz, France, June 14-19, 2009, organized by the French Carbon Group (GFEC).
- \* Associate Editor, Journal of Electronic Materials, 2008-.
- \* Reviewer for National Priorities Research Program, Qatar National Research Fund, 2009-.
- \* Reviewer for King Abdulaziz City for Science and Technology, Saudi Arabia, 2009-.
- \* Member, International Advisory Committee, World Conference on Carbon, Shanghai, China, July 24-29, 2011.

## BOOKS

### Authored books

1. Kenji Uchino, D.D.L. Chung and R.E. Newnham, JME Materials Science: Introduction to Electrical Properties for Ceramists (JME Zairyo Kagaku: Seramisuto no tame no Denki Bussei Nyumon), Uchida Rokakuho Publishing Co., Ltd., Tokyo, Japan, 1990, 156 pp. Book written in Japanese. Translated from English.
2. D.D.L. Chung, P.W. DeHaven, H. Arnold and D. Ghosh, X-Ray Diffraction at Elevated Temperatures, VCH Publishers, 1993.
3. D.D.L. Chung, Carbon Fiber Composites, Butterworth-Heinemann, 1994.
4. D.D.L. Chung, Composite Materials for Electronic Functions, Materials Science Foundations, Vol. 12, i-iii, 1-77, Trans Tech Publications Ltd., Switzerland, 2000.
5. D.D.L. Chung, Applied Materials Science, CRC Press, 2001.
6. D.D.L. Chung, Composite Materials: Functional Materials for Modern Technologies, "Engineering Materials and Processes" Book Series, Brian Derby, Series Editor, Springer, 2003.
7. D.D.L. Chung, Multifunctional Cement-Based Materials, "Civil and Environmental Engineering" Book Series, Mike Meyer, Series Editor, Marcel Dekker, 2003.
8. D.D.L. Chung, Book series titled "Engineering Materials for Technological Needs", Vol. 2, Functional Materials: Electrical, Dielectric, Electromagnetic, Optical and Magnetic Applications, World Scientific, 2010.
9. D.D.L. Chung, Composite Materials: Science and Applications, 2<sup>nd</sup> Ed., Springer, 2010.

### Edited books

1. Ephraim Suhir, Robert C. Cammarata, D.D.L. Chung and Masahiro Jeno, Materials Research Society Symposium Proceedings, Vol. 226 (Mechanical Behavior of Materials and Structures in Microelectronics), Symposium held April 30 – May 3, 1991, Anaheim, CA, Materials Research Society, Pittsburgh, PA, 1991.
2. D.D.L. Chung and E.A. Heintz, Extended Abstracts, 21st Biennial Conference on Carbon, American Carbon Society, 1993.
2. D.D.L. Chung, Materials for Electronic Packaging, Butterworth-Heinemann, Boston, MA, 1995.
3. D.D.L. Chung, Book Series titled The Road to Scientific Success: Inspiring Life Stories of Prominent Researchers, World Scientific Pub., Singapore, Vol. 1, 2006.
4. D.D.L. Chung, Book Series titled Engineering Materials for Technological Needs, World Scientific Pub., Singapore, 2005-. Vol. 1: High Performance Construction Materials, Caijun Shi and Y. L. Mo (eds.), World Scientific Pub., Singapore, 2008. Chinese translation, Chongqing University Press, China, 2011.

**PATENTS**

1. D.D.L. Chung, "Low-Density Graphite-Polymer Electrical Conductors", U.S. Patent 4,704,231 (1987).
2. D.D.L. Chung, "Composites of In-Situ Exfoliated Graphite", U.S. Patent 4,946,892 (1990), Canadian Patent 1,330,609 (1994).
3. D.D.L. Chung, "Exfoliated Graphite Fibers and Associated Method", U.S. Patent 4,915,925 (1990).
4. D.D.L. Chung, "Carbon Fiber Reinforced Cement Concrete Composites Improved by Using Chemical Agents", U.S. Patent 5,032,181 (1991).
5. D.D.L. Chung, "Superconductor-Metal Laminates and Method of Making", U.S. Patent 5,059,582 (1991).
6. D.D.L. Chung, "Carbon Fiber Composites with Improved Fatigue Resistance", U.S. Patent 5,091,242 (1992).
7. D.D.L. Chung, "Carbon Fiber Reinforced Tin Alloy as a Low Thermal Expansion Solder Preform", U.S. Patent 5,089,356 (1992).
8. D.D.L. Chung, "Phosphate Binders for Metal-Matrix Composites", U.S. Patent 5,536,686 (1996); European patent application WO 9409169 (1994).
9. Yi-Han Kao, Liwei Song, D.D.L.Chung and Kevin T. Fredette, "Halogen Doped Superconductive Fullerenes", U.S. Patent 5,380,703 (1995).
10. Yi-Han Kao, Liwei Song, D.D.L. Chung, and Kevin T. Fredette, "Inter-Halogen-Doped Superconductive Fullerenes," U.S. Patent 5,561,102 (1996).
11. D.D.L. Chung and Xiaoping Shui, "Metal Filaments for Electromagnetic Interference Shielding", U.S. Patent 5,827,997 (1998).
12. D.D.L. Chung, "Particulate Carbon Complex," U.S. Patent 5,643,670 (1997).
13. D.D.L. Chung and Weiming Lu, "Mesoporous Activated Carbon," U.S. Patent 5,990,041 (1999).
14. D.D.L. Chung, "Methods and Sensors for Detecting Strain and Stress," U.S. Patent 6,079,277 (2000).
15. D.D.L. Chung, "Composite Material Strain/Stress Sensor," U.S. Patent 5,817,944 (1998).
16. D.D.L. Chung, "Conformable Interface Materials for Improving Thermal Contacts", U.S. Patent 7,535,715 (2009); Chinese Patent CN 101416304 B (2011).
17. D.D.L. Chung and Chuanggang Lin, "High-Performance Interface Materials for Improving Thermal Contacts", U.S. Patent 8,013,024 (2011).

**BOOK CHAPTERS**

1. D.D.L. Chung, "Overview of Materials for Electronic Packaging", Materials for Electronic Packaging, D.D.L. Chung (Ed.), Butterworth-Heinemann, Boston, MA, 1995, p. 3-39.
2. D.D.L. Chung, "Low Thermal Expansion Composite Materials for Electronic Packaging", Materials for Electronic Packaging, D.D.L. Chung (Ed.), Butterworth-Heinemann, Boston, MA, 1995, p. 145-152.
3. D.D.L. Chung, "Conducting Polymer-Matrix Composites", Materials for Electronic Packaging, D.D.L. Chung (Ed.), Butterworth-Heinemann, Boston, MA, 1995, p. 153-171.
4. Darold C. Wobschall and D.D.L. Chung, "Ohmmeters", The Encyclopedia of Electrical and Electronics Engineering, Vol. 15, pp. 122-123, Wiley, 1999.
5. D.D.L. Chung, "X-Ray Diffraction for Structure Determination", Encyclopedia of Analytical Chemistry, R.A. Meyers (Ed.), Wiley, Chichester, UK, 2000, Vol. 15, p. 13347-13384.

6. D.D.L. Chung and C. Zweben, "Composites for Electronic Packaging and Thermal Management", Comprehensive Composite Materials, Vol. 6, Pergamon, 2000, p. 701-725.
7. D.D.L. Chung, "Graphite Intercalation Compounds", Encyclopedia of Materials: Science and Technology. K.H.J. Buschow, R.W. Cahn, M.C. Flemings, B. Ilshner, E.J. Kramer and S. Mahajan (eds.), Elsevier, Oxford, Vol. 4, p. 3641-3645 (2001).
8. D.D.L. Chung, "Applications of Submicron Diameter Carbon Filaments", Proc. NATO Advanced Study Institute, NATO Science Series, Series E: Applied Sciences - Vol. 372 (Carbon Filaments and Nanotubes: Common Origins, Differing Applications?, Laszlo P. Biro (Ed.)), Kluwer Academic Publishers, Dordrecht, 2001, p. 275-288; also in Nanostructured Carbon for Advanced Applications, G. Benedek et al. (Ed.), Kluwer, Netherlands, 2001, p. 331-345.
9. Shoukai Wang, Sihai Wen, Victor H. Guerrero and D.D.L. Chung, "Thermoelectric Structural Composites and Thermocouples Using Them" Materials Research Society Symposium Proceedings, Volume 691, Issue Thermoelectric Materials 2001: Research and Applications, Materials Research Society, 2002, pp. 177-182.
10. D.D.L. Chung, "Composites, Intrinsically Smart Structures", Encyclopedia of Smart Materials, ed. Mel Schwartz, Wiley, 2002, Vol. 1, p. 223-243.
11. D.D.L. Chung, "Carbon-Cement Composites", World of Carbon 2 (Fibers and Composites), Pierre Delhaes (Ed.), Taylor & Francis, 2003, p. 219-241.
12. D.D.L. Chung, "Functional Composite Materials", Advances in Condensed Matter and Materials Research, Ed. Francois Gerard, Nova Science Pub., Hauppauge, NY, 2003, p. 89-147.
13. Sihai Wen and D.D.L. Chung, "Fiber Reinforced Cement for Piezoelectricity and Pyroelectricity", ACI Special Publication SP-216, Innovations in Fiber-Reinforced Concrete for Value, Ed. N. Banthia, M. Criswell, P. Tatnall and K. Folliard, American Concrete Institute, Farmington Hills, MI, 2003, p. 115-128.
14. D.D.L. Chung, "Multifunctional Polymer-Matrix Structural Composites", Annual Technical Conference - Society of Plastics Engineers, Volume 62<sup>nd</sup>, Issue Vol. 2, Society of Plastics Engineers, 2004, pp.1410-1414.
15. D.D.L. Chung, "Composite Materials", Kirk-Othmer Encyclopedia of Chemical Technology, 5<sup>th</sup> Ed., Wiley, 2004.
16. D.D.L. Chung, "Composite Materials", Kirk-Othmer Concise Encyclopedia of Chemical Technology, 5<sup>th</sup> Ed., Wiley, 2007.
17. D.D.L. Chung, G. Song, N. Ma and H. Gu, "Smart Materials and Structures", High Performance Construction Materials, Caijun Shi and Y. L. Mo (eds.), Vol. 1 of Book Series "Engineering Materials for Technological Needs", World Scientific Pub., Singapore, 2008. Chinese translation, Chongqing University Press, China, 2011.
18. D.D.L. Chung, "Sensors in Composites", International Encyclopedia of Composites, 2<sup>nd</sup> Ed., edited by Luigi Nicolais, Wiley-Interscience, 2011.

#### **JOURNAL PAPERS**

497 archival peer-reviewed journal papers categorized by material type  
 Web of Science h-index = 40

#### CARBON (126 journal papers)

1. D.D.L. Chung and M.S. Dresselhaus, "Magnetoreflexion Study of Graphite Intercalated with Bromine," Solid State Comm. 19, 227 (1976).
2. D.A. Platts, D.D.L. Chung and M.S. Dresselhaus, "Far-Infrared Magnetoreflexion Studies of Graphite Intercalated with Bromine," Phys. Rev. B15, 1087 (1977).
3. D.D.L. Chung and M.S. Dresselhaus, "Magneto-Optical Studies of Graphite Intercalation Compounds," (invited paper), Physica 89B, 131 (1977).
4. J.J. Song, D.D.L. Chung, P.C. Eklund and M.S. Dresselhaus, "Raman Scattering in Graphite Intercalation

- Compounds," Solid State Comm. 20, 1111 (1976).
5. D.D.L.Chung, G. Dresselhaus and M.S. Dresselhaus, "Intralayer Crystal Structure and Order-Disorder Transformations of Graphite Intercalation Compounds," Mater. Sci. Eng. 31, 107 (1977).
  6. M.S. Dresselhaus, G. Dresselhaus, P.C. Eklund and D.D.L. Chung, "Lattice Vibrations in Graphite and Intercalation Compounds of Graphite," Mater. Sci. Eng. 31, 141 (1977).
  7. D.D.L. Chung, "Structural Studies of Graphite Intercalation Compounds," J. Electron. Mat. 7, 89 (1978).
  8. J.S. Culik and D.D.L. Chung, "Calorimetric Study of the Order-Disorder Transformations in Graphite-Halogens," Mater. Sci. Eng. 37, 213 (1979).
  9. D.D.L. Chung, "Nomenclature of Graphite Intercalation Compounds," Mater. Sci. Eng. 39, 283 (1979).
  10. D.D.L. Chung, "Graphite-Halogens As Temperature Calibration Standards for Transmission Electron Microscopy," Rev. Sci. Instrum. 51, 932 (1980).
  11. J.S. Culik and D.D.L. Chung, "Thermal Gravimetric Analysis of Graphite-Bromine," Mater. Sci. Eng. 44, 129 (1980).
  12. K.K. Bardhan and D.D.L. Chung, "A Kinetic Model of the First Intercalation of Graphite," Carbon 18, 303 (1980).
  13. K.K. Bardhan and D.D.L. Chung, "Surface Profilometric Study of the Kinetics of the Intercalation of Graphite," Carbon 18, 313 (1980).
  14. K.K. Bardhan, J.C. Wu and D.D.L. Chung, "Phase Transitions in Graphite-Halogens," Synth. Met. 2, 109 (1980).
  15. K.K. Bardhan, J.C. Wu, J.S. Culik, S.H. Anderson and D.D.L. Chung, "Kinetics of Intercalation and Desorption in Graphite," Synth. Met. 2, 57 (1980).
  16. D.D.L. Chung "Exfoliation of Graphite," Therm. Expans., [Proc. Int. Therm. Expans. Symp.], 7th 1979 (Pub. 1982), 37-44. Edited by D.C. Larsen. Plenum: New York, NY.
  17. D. Ghosh and D.D.L. Chung, "Electron Diffraction Evidence of Domain Twinning in Graphite-Bromine Single Crystals," Mater. Res. Bull. 18 (16), 727-33 (1983).
  18. S.H. Anderson and D.D.L. Chung, "Thermodynamics of Intercalation of Bromine in Graphite," Mater. Res. Soc. Symp. Proc. 20 (Intercalated Graphite), 271-6 (1983).
  19. S.H. Anderson and D.D.L. Chung, "Exfoliation of Single Crystal Graphite and Graphite Fibers Intercalated with Halogens," Synth. Met. 8, 343-9 (1983).
  20. D. Ghosh and D.D.L. Chung, "Effect of Intercalate Desorption on the Two-Dimensional Structure of Graphite-Bromine," Synth. Met. 7, 283-8 (1983).
  21. D. Ghosh and D.D.L. Chung, "Two-Dimensional Structure of Bromine Intercalated Graphite," Mater. Res. Bull. 18 (10), 1179-89 (1983).
  22. S.H. Anderson and D.D.L. Chung, "Exfoliation of Intercalated Graphite," Carbon 22 (3), 253-63 (1984).
  23. S.H. Anderson and D.D.L. Chung, "Intercalate Displacement and Exchange in Graphite," Synth. Met. 7, 107-15 (1983).
  24. J.S. Culik and D.D.L. Chung, "Calorimetric Study of the Rate of the 277 K Phase Transition in Graphite-Bromine," Carbon 22 (1), 102-3 (1984).
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