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CURRICULUM VITA

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<http://www.acsu.buffalo.edu/~ddlchung/index>

<http://alum.mit.edu/www/ddlchung>

http://engineering.buffalo.edu/home/outreach/diversity/women-in-science-and-engineering/faculty.host.html/content/shared/engineering/home/wise/wise-faculty/Deborah_Chung.detail.html

<https://scholar.google.com/citations?user=IIm7ZW8AAAAJ>

http://en.wikipedia.org/wiki/Deborah_Chung

<http://www.caltech.edu/news/forty-five-years-their-graduation-three-caltechs-first-female-bs-recipients-look-back-81687>

http://icue.nbcunifiles.com/icue/files/nbclearn/site/video/widget/NBC_Learn_Video_Widget2.swf?CUECARD_ID=62976

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 energy (energy generation, energy storage, oil wellbore, etc.), environmental, manufacturing, electronic, communication, monitoring, security, transportation, aircraft and civil infrastructure industries, and three-dimensional printing. The types of materials include carbons, carbon fibers, ceramics and carbon-matrix, polymer-matrix, cement-matrix and metal-matrix composites.

EXPERIENCE

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

*Professor of Mechanical and Aerospace Engineering (1986-present)

*Founding Director, Composite Materials Research Laboratory, founded in 1989.

*Niagara Mohawk Power Corp. Endowed Chair Professor, named in 1991.

*Member, President's Review Board, 2015-16.

*Founding Member, UB Community of Excellence on Sustainable Manufacturing and Advanced Robotic Technologies (SMART), founded in 2015.

*Senator (elected), Faculty Senate, Member of the Executive Committee, 2016-2018

*Member, Chancellor's Advisory Committee, 2018

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

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.

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

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

Outstanding Inventor, State University of New York, 2002.

Fellow, American Carbon Society, conferred in 2001.

Fellow, ASM International, conferred in 1998.

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

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.

Albert Nelson Marquis Lifetime Achievement Award, Marquis Who's Who, 2018.

Elected to the EU Academy of Sciences, 2018.

The 2018 Publons' Global Peer Review Awards for being placed in the top 1% of peer reviewers in Materials Science (ranked 5th in the world) and for being placed in the top 1% of peer reviewers in Chemistry. These awards are based on the number of reviews of manuscripts submitted to various journals for consideration of publication.

Special Recognition Award, The American Carbon Society, 2007.

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

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

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

Recipient of the Ralph R. Teetor 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.

Pu-Woei Chen and D.D.L. Chung, "Carbon Fiber Reinforced Concrete as a Smart Material Capable of Non-Destructive Flaw Detection", *Smart Mater. Struct.* 2(1), 22-30 (1993). This paper is one of the 25 most cited papers in the 25-year history of the journal *Smart Materials and Structures*.

Paper with M. Sharma honored as Editors' Choice in *Journal of Electronic Materials*, 2015.

One of the top ten best cited papers in *Composites B* in all times past, honored in 2012.

U.S. Faculty Scholar, Vietnam Education Foundation, 2013-14.

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

Visiting Professor, Hefei University of Technology, Hefei, P.R. China, appointed in 2013.

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

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

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.

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

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

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.

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

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

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

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

Member, Materials Research Society, 1981-present.

Member, The Minerals, Metals & Materials Society (TMS), 1977-present. 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, American Society of Mechanical Engineers, 2014-present.

Member, Society of Automotive Engineers, 1987-1989

Member, American Ceramic Society, 1989-1990, 1994, 2018.

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, Composites Part B, 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.F
- * 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, 24th 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-.
- *Member, Advisory Board, American Carbon Society, 1999-2006.
- *Judge, 24th 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) and Committee 236 on Nanotechnology (2011-).
- *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, 5th 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, 2011 and 2015.
- * 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.
- * Member, International Experts Committee, new Doctorate Program on “Engineering of Materials , Structures and Terrain: Sustainable Construction”, Department of Civil Engineering, University of Alicante, Alicante, Spain, 2012-.

- Member, Advisory Committee, School of Engineering, Hong Kong University of Science and Technology, Hong Kong, 2013.
- Reviewer for National Centre of Science and Technology, Kazakhstan, 2014-
- Reviewer for Office of Science, DOE, 2014-
- Reviewer of Applications for Establishment of the Hong Kong Branches of Chinese National Engineering Research Centres, 2014.
- Editor-in-Chief, Composite Materials section of SpringerMaterials, 1/2015 - 12/2016.
- Proposal reviewer, U.S. – Israel Binational Science Foundation, 2017.
- Member, Editorial Board, Functional Composite Materials (journal), Springer Nature (2017-).
- Member, Panel on Review of In-house Laboratory Independent Research in Materials Sciences at the Army's Research, Development, and Engineering Centers, The National Academies, 2018-19.
- Member, Advisory Committee, Carbon 2019 International Conference, Kentucky, July 2019.

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*, 1st Ed., Butterworth-Heinemann, 1994; *Carbon Composites: Composites with Carbon Fibers, Nanofibers and Nanotubes*, 2nd Ed., Elsevier, 2017.
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*, 1st Ed., "Engineering Materials and Processes" Book Series, Brian Derby, Series Editor, Springer, 2003; *Composite Materials: Science and Applications*, 2nd Ed., Springer, 2010.
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. Rebecca Chan Chung, D.D.L. Chung, Cecilia Ng Wong, *Piloted to Serve*, Deborah Chung, 2012.
10. D.D.L. Chung, Book series titled *Engineering Materials for Technological Needs*, Vol. 3, *Carbon Materials: Science and Applications*, World Scientific, 2018.

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; Vol. 2, 2014.
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).
11. 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 Chuangang Lin, "High-Performance Interface Materials for Improving Thermal Contacts", U.S. Patent 8,013,024 (2011).

18. D.D.L. Chung and Sivaraja Muthusamy, "Cement-Graphite Composite Materials for Vibration Damping", U.S. Patent 8,211,227 (2012).
19. D.D.L. Chung and Xiaoqing Gao, "Microstructured high-temperature hybrid material, its composite material and method of making", U.S. Patent 9409823 (issued on Aug. 9, 2016).
20. D.D.L. Chung, "Thixotropic liquid-metal-based fluid and its use in making metal-based structures with or without a mold", U.S. Patent 9993996 B2 (issued 6/12/18); U.S. Patent Application 2016/0368244 A1 allowed; China Patent CN 105458254A; Hong Kong Patent Application pending.
21. D.D.L. Chung, "Cement-based material systems and method for self-sensing and weighing", US Patent Application 2017/15791015.
22. D.D.L. Chung, "Systems and method for monitoring three-dimensional printing", U.S. Patent Application 2017/15730726.

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.

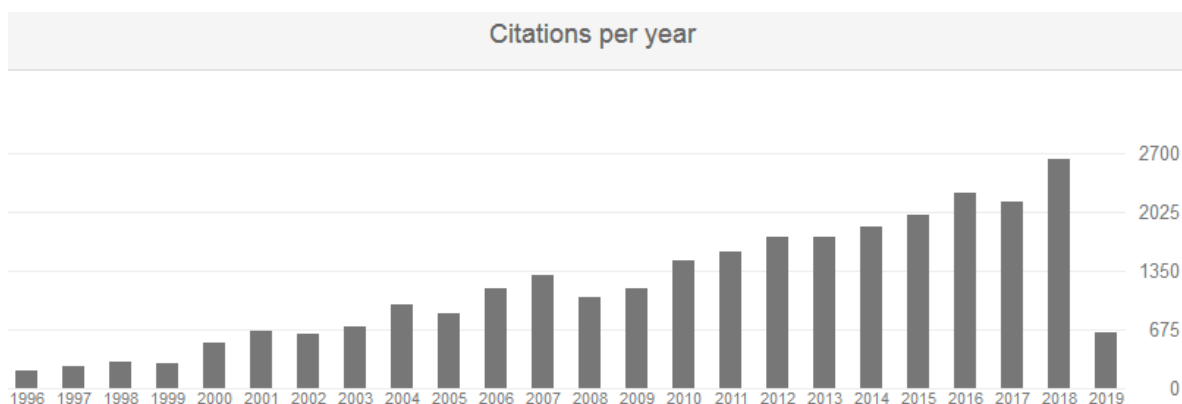
Tatnall and K. Folliard, American Concrete Institute, Farmington Hills, MI, 2003, p. 115-128.

14. D.D.L. Chung, "Multifunctional Polymer-Matrix Structural Composites", Annual Technical Conference - Society of Plastics Engineers, Volume 62nd, Issue Vol. 2, Society of Plastics Engineers, 2004, pp.1410-1414.
15. D.D.L. Chung, "Composite Materials", *Kirk-Othmer Encyclopedia of Chemical Technology*, 5th Ed., Wiley, 2004.
16. D.D.L. Chung, "Composite Materials", *Kirk-Othmer Concise Encyclopedia of Chemical Technology*, 5th 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", *Wiley Encyclopedia of Composites*, 2nd Ed., edited by Luigi Nicolais, Assunta Borzacchiello and Stuart M. Lee. Wiley-Interscience, 2014.
19. D.D.L. Chung, "Composite Materials", *Kirk-Othmer Encyclopedia of Chemical Technology*, 6th Ed., Wiley, 2016 (in press).
20. D.D.L. Chung, "Graphite Intercalation Compounds", *The Reference Module in Materials Science and Engineering*, Saleem Hashmi, Editor, Elsevier, 2016.
21. D.D.L. Chung, "Self-Sensing Structural Composites in Aerospace Engineering", *Advanced composite materials for aerospace engineering: processing, properties and applications*, Sohel Rana and Raul Fanguero, Editors, Woodhead Pub., Elsevier, 2016, Ch. 10, p. 295-331.
22. D.D.L. Chung, "Carbon Fibers", ASM Handbook, Volume 21, 2016.
23. D.D.L. Chung, in, *Successful Women Ceramic and Glass Scientists and Engineers: 100 Inspirational Profiles*, L.D. Madsen, Wiley, 2016, ISBN: 978-1-118-73360-8.

JOURNAL PAPERS

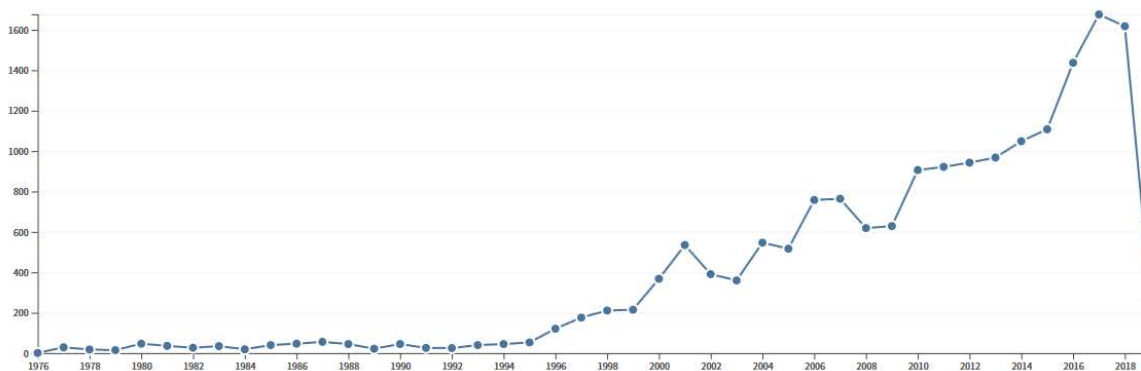
Google Scholar: h-index = 89, 29213 citations, annual citations reaching 2635.

The number of citations over the years is shown in the chart below, as obtained from Google Scholar.



Web of Science: h-index = 67, 609 publications, 17774 citations, annual citations reaching 1676.

The number of citations over the years is shown in the chart below, as obtained from Web of Science.



Most highly cited publication: D.D.L. Chung, "Electromagnetic Interference Shielding Effectiveness of Carbon Materials", *Carbon* 39(2), 279-285 (2001). 1436 citations (Google Scholar) and 1007 citations (Web of Science).

569 archival peer-reviewed international journal papers categorized by material type are listed below.

CARBON (153 journal papers)

1. D.D.L. Chung and M.S. Dresselhaus, "Magnetoreflexion Study of Graphite Intercalated with Bromine," *Solid State Comm.* 19, 227 (1976).
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