



Professor Tsu-Wei Chou

See:

<http://www.me.udel.edu/people/chou.html>

<http://sites.udel.edu/chou/>

<http://www.udel.edu/udaily/2014/nov/asme-chou-111813.html>

<http://scholar.google.com/citations?user=05-UQjcAAAAJ&hl=en>

Pierre S. du Pont Chair of Engineering
Department of Mechanical Engineering
University of Delaware

Biography:

Dr. Tsu-Wei Chou is the Pierre S. du Pont Chair of Engineering at the University of Delaware. Dr. Chou received the B.S. degree in civil engineering from the National Taiwan University (1963), the M.S. degree in materials science from Northwestern University (1966) and the Ph.D. degree in materials science from Stanford University. He joined the faculty of the University of Delaware in 1969. Dr. Chou also has served as a visiting professor in the following institutes: Argonne National Laboratory 1975-76, British Science Research Council 1976, the University of Witerwatersrand, South Africa 1977, National Commission for the Investigation of Space, Argentina 1981, Germany Aerospace Research Establishment 1982, London Branch Office, Office of Naval Research 1983, Tongji University, China 1990, Tokyo Science University, Japan 1990, and Industrial Research Institute, Japan 1997. Dr. Chou is an Honorary Research Professor of the Beijing University of Aeronautics and Astronautics and the Northwestern Polytechnical University as well as an Advisory Professor of Tongji University of China. He has performed composites technology assessments in Europe and Asia for ONR and ARO, respectively.

Dr. Chou's research interests are in materials science, applied mechanics, fiber composite materials, piezoelectric materials, and nanocomposites. He has authored over 340 archival journal papers and book chapters in these areas with a total Google Scholar Citation of over 22,200. Dr. Chou is the author of the book, *Microstructural Design of Fiber Composites*, Cambridge University Press, England (1992), the co-author of the book, *Composites Materials and Their Use in Structures*, Elsevier Applied Science, London (1975), and the editor of several books. Dr. Chou is a Fellow of ASME, ASM, ASC, ACerS, TMS and AIAA, and a recipient of the Charles Russ Richards Memorial Award, the Worcester Reed Warner Medal and the Nadai Medal of ASME, the Distinguished Research Award and the ASC/DEStech Award in Composites of the American Society for Composites, as well as the Francis Alison Medal and the Medal of Excellence in Composite Materials of the University of Delaware. Dr. Chou is the Editor-in-Chief of the international journal *Composites Science and Technology*. He has been recognized by ISI as one of the "Highly Cited Researchers" in the world. Dr. Chou has been named among top 100 materials scientists (ranked 34th) of the past decade (2000-2010) by Times Higher Education. Dr. Chou has been honored as a World Fellow by the International Committee on Composite Materials.

Selected Publications:

Vinson JR, Chou TW (1975) *Composite materials and their use in structures*, Applied Science Publishers Ltd

Fukunaga, H., and Chou, T. W., "Simplified Design Techniques for Laminated Cylindrical Pressure Vessels Under Stiffness and Strength Constraints," *Journal of Composite Materials*, Vol. 22, No. 12, 1988, pp. 1156–1169. doi:10.1177/002199838802201206

Chou, T. W., "Microstructural Design of Fiber Composites," Cambridge University Press, Cambridge (1992).

E. T. Thostenson, Z. Ren and T. W. Chou, *Advances in the science and technology of carbon nanotubes and their composites: a review*, *Comp. Sci. Technol*, 61 (2001) 1899- 1912.

C. Li and T. W. Chou, A structural mechanics approach for the analysis of carbon nanotubes, *Int. J. Solids Struct.* 40 (2003) 2487–2499.

C. Li and T. W. Chou, Single-walled carbon nanotubes as ultrahigh frequency nanomechanical resonators, *Phys. Rev. B*, 68 (2003) 073405.

C. Li and T. W. Chou, Vibrational behaviors of multi-walled-carbon-nanotube-based nanomechanical resonators, *App. Phys. Lett.*, 84 (2004) 121.

C. Li and T. W. Chou, Mass detection using carbon nanotube-based nanomechanical resonators, *App. Phys. Lett.*, 84 (2004) 5246-5248.

Chunyu Li and Tsu-Wei Chou (Center for Composite Materials, Department of Mechanical Engineering, University of Delaware, 126 Spencer Laboratory, Newark, DE 19716-3140, USA), "Modeling of elastic buckling of carbon nanotubes by molecular structural mechanics approach", *Mechanics of Materials*, Vol. 36, No. 11, November 2004, pp. 1047-1055, doi:10.1016/j.mechmat.2003.08.009

Li, C., and Chou, T. W., Multiscale modeling of compressive behavior of carbon nanotube/ polymer composites. DOI: 10.1016/j.compscitech.2006.01.013

Li, C., and Chou, T. W., A structural mechanics approach for the analysis of carbon nanotubes. DOI: 10.1016/S0020-7683(03)00056-8