

Tsu-Wei Chou, Pierre S. du Pont, Chair of Engineering in the Department of Mechanical Engineering.



UDaily Story

CCM Founding Member Tsu-Wei Chou Named in Top 100 Materials Scientists of Decade

2:07 p.m., March 8, 2011----

Times Higher Education has named Tsu-Wei Chou, Pierre S. du Pont Chair of Engineering in the Department of Mechanical Engineering at the University of Delaware, among the top 100 materials scientists of the past decade.

Materials science is a realm that overlaps with chemistry, physics, engineering and other areas. High-impact researchers were chosen according to citation impact recorded by Thomas Reuters for papers published since January 2000. Chou, who ranked 34th, and the other researchers listed were chosen from among approximately 500,000 materials scientists recorded. They represent the top 0.02 of one percent in the field. Seventy-eight percent of the scientists featured, including Chou, named nanotechnology as a main focus of their research.

Impact factor is a weighted measurement of influence that quantifies the number of times a paper is cited or referenced by authors in their research work and that reveals consistently superior performance in one's field. A threshold of 25 papers was used in validating the analysis. A total of 48 scientists from the U.S were named to list. Among the other scientists' national affiliations are Germany (11); United Kingdom (8); France and the Netherlands (4); Australia, China, South Korea and Switzerland (3); Belgium, Russia and Sweden (2); and Austria, Canada, Denmark, Ireland, Israel, Japan, Portugal and Taiwan (1).

TOP STORY (Continued)

The list complements a previous featured list of the top 100 chemists that was created in recognition of 2011 as the International Year of Chemistry. A future analysis focused on influential biochemists due later this year rounds out the celebration.

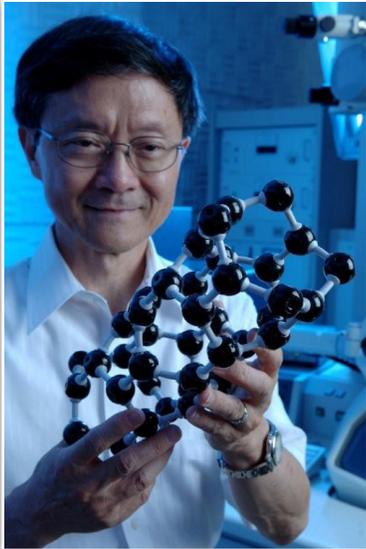


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Chou joined UD in 1969. His research interests are in materials science, applied mechanics, fiber composite materials, piezoelectric materials and nanocomposites. He has authored over 315 archival journal papers and book chapters, as well as several books.

He is also editor-in-chief of the international journal *Composites Science and Technology* which ranked No. 1 among the 23 composites journals in the materials science area in 2009.

Article by Karen B. Roberts

About Tsu-Wei Chou

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 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 300 archival journal papers and book chapters in these areas. 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 International, American Ceramic Society, ASC, TMS and AIAA, and a recipient of the Charles Russ Richards Memorial Award and the Worcester Reed Warner Medal of ASME, the Distinguished Research Award of American Society for Composites, and the Francis Alison Medal as well as 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.*

UDaily Story

UD awarded \$19.5 million to establish orthopaedic rehabilitation clinical consortium

10:49 a.m., March 14, 2011----A team of researchers led by the University of Delaware has been awarded a five-year, \$19.5 million grant from the Department of Defense to establish evidence-based orthopaedic rehabilitation care that optimizes the ability of soldiers with musculoskeletal injuries to function in everyday life.

The award was made through DOD's Office of Congressionally Directed Medical Research Programs to the BADER Consortium, which brings together military training facilities, academic researchers and rehabilitation institutes. Steven Stanhope, professor in UD's Department of Kinesiology and Applied Physiology, is principal investigator and will serve as consortium director.

BADER is an acronym for "Bridging Advanced Developments for Exceptional Rehabilitation." Typifying exceptional function following injury, Royal Air Force fighter pilot Sir Douglas Bader lost both legs in a plane crash but went on to shoot down 22 German planes and attempt multiple escapes as a POW during World War II.

Stanhope explains that improvements in body armor and emergency care have resulted in soldiers of the Iraq and Afghanistan wars surviving injuries in much greater numbers than those in previous wars. However, this has led to a significant increase in severe orthopedic injuries caused by high-velocity weapons and explosive devices.

Despite extensive medical services and limb salvage procedures, many of these injuries result in significantly impaired musculoskeletal structures and limb amputations.

"Our goal is to see every wounded warrior living a full and engaging life without boundaries -- just like Sir Bader," says Stanhope, who has a joint appointment in UD's Department of Mechanical Engineering and whose research specialty is biomechanics.

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Photo compliments of UDaily



The BADER Consortium builds on existing collaborations between UD and the U.S. Army in the development of assistive devices for wounded warriors.

Here, members of a UD-Army team examine a prototype leg brace made using the Army's free-form fabrication technology. Consortium director Steven Stanhope (second from left) specializes in biomechanics, with a particular focus on orthoses and prosthetics for foot and ankle impairments. CCM director Jack Gillespie (second from right) and John Tierney (middle) specialize in engineering design, analysis, testing and rapid prototyping of composites. "We wish to congratulate Steven for his success and look forward to providing new light-weight composite solutions".

CONSORTIUM MEMBERS

We would like to thank **Samsung Electronics Co., Ltd.**, South Korea, for becoming our newest consortium member. We would also like to thank **AMTECH Corporation**, Yelm, WA, for continuing to participate in CCM's research and development activities.

To learn more about the benefits of becoming a member, please visit us on the web at www.ccm.udel.edu/Consortium/benefits.html



Celebrating 35 years of significant contributions to composites science and technology, the education of students, and the creation and transfer of technology to industry.

This is a newsletter publication of the University of Delaware Center for Composite Materials
Please visit us on the web at <http://www.ccm.udel.edu>

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