



sent handwritten notes to prospective students to encourage them to apply to the graduate program. Her enthusiastic mentorship persisted late into her life. If she asked you to deliver a last-minute keynote presentation about an unfamiliar topic on her behalf, you could expect Julia to send you revised presentation slides from her hospital bed until you felt inspired to present. As Andrea Hodge, University of Southern California, observed, Julia treated her students as equals, but required them to work hard to prove themselves.

The hard work that Julia and her students put into novel and high-quality research has resulted in countless scientific papers and patents, dating back to the 1950s, which remain highly cited and relevant to this day. Her pioneering work spans fields from nanocrystalline materials synthesis and characterization, to the study of materials microstructure and defects using neutron and synchrotron x-ray scattering, to magnetic properties. Julia's collaborators, such as Jeffery Eastman, Peter Jemian, and Gabrielle Long, from Argonne National Laboratory, recalled how experiments performed in

their homebuilt synthesis chambers in the 1990s continue to influence state-of-the-art science. Her research has laid the foundation for understanding nanoscale energy materials, engineering ceramics, catalysts, and more. Despite experiencing great success with fundamental science, Julia remained ever-pragmatic and aimed to find technological applications of nanocrystalline materials. Her collaborator, Helena Van Swygenhoven-Moens, professor at the Paul Scherrer Institute and École Polytechnique Fédérale de Lausanne in Switzerland, described how pleased Julia would be to know of recent applications of nanocrystalline alloys in mechanical components of consumer products and stents for cardiovascular surgeries.

While Julia enjoyed hands-on experimental research, Hans Weertman saw the world through mathematics. Encouraging his students, such as David Cole, Dartmouth College, to "worry about mechanisms, not scale," Hans's work enabled fundamental understanding of creep in crystalline materials, from metallic alloys to the ice of glaciers, and

slip of earthquake faults. Hans's contributions in this area were honored with the naming of Weertman Island in Antarctica. Hans spent some of his early career elucidating dislocation mechanics in ice—a zeitgeist of a topic that, according to Douglas MacAyeal, The University of Chicago, captivated some of the best scientific minds post-World War II. Hans shared Julia's commitment to improving diversity in science and to giving credit where due. He encouraged students in his advanced dislocations class to publish their class projects and acknowledged their help proofreading his "Dislocation-Based Fracture Mechanics" text.

After listening to the stories about Julia and Hans Weertman, it is clear that they were a rare couple: phenomenal scientists who set high standards for their students in a warm supportive environment. Their legacy, like their science, will stand the test of time. It lives on in their children, Bruce and Julia, their students and colleagues, and in the current and future students of materials science and engineering, who can be inspired by their example.

13th New Diamond and Nano Carbons Conference to be held in Taiwan
ndnc2019.org

The 13th New Diamond and Nano Carbon Conference (NDNC 2019) will be held in Taiwan, May 12–17. The conference will present recent breakthroughs in the synthesis, physics, and applications of diamonds and other carbon nanostructures, such as graphene and nanotubes.

The program features four plenary talks (Huan-Cheng Chang, Academia Sinica, Taiwan; Toshiaki Enoki, Tokyo Institute of Technology, Japan; Ho-Kwang Mao, HPTSTAR, China, and Carnegie Institution, USA; and Boris Yakobson, Rice University, USA), 25 invited talks, oral contributions, and poster sessions.

NDNC is a merger of the former International Conference on New Diamond Science and Technology (ICNDST), initiated in 1988 in Japan, and the International Conference on Applications of Diamonds (Applied Diamond Conference), initiated in 1991 in the United States. For more information, visit ndnc2019.org.

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