

P. Gouma- biosketch

Dr. Pelagia-Irene (Perena) Gouma is currently the *Edward Orton Jr., Chair in Ceramic Engineering at The Ohio State University*. Her previous appointment was with the Institute of Predictive Performance Methodologies (IPPM) and with the MSE Dept. (tenured Full Professor) at the University of Texas-Arlington. Before that, for 16 years, she was a Professor at the State University of New York in Stony Brook, and the Founder and Director of the Center for Nanomaterials and Sensor Development (CNSD). She holds a B.Sc. degree in Applied Physics from the Aristotelian University in Thessaloniki Greece; a M.Sc. (Eng) degree in Materials from the University of Liverpool, UK and a M.Phil in Organizational Management from the same Institution. She received her Ph.D. in Materials Science and Engineering from The University of Birmingham in the UK.

Dr. Gouma's research activities involve the synthesis and characterization of nanomaterials for bio-/chemical sensors and biotechnology as well as the development of artificial olfaction systems (breath analyzers, electronic noses and tongues). Dr. Gouma has established novel and highly successful programs on nanomedicine, with emphasis on the development of non-invasive breath and skin-based diagnostic tools. Another area of her research involves the nanomanufacturing of single crystal ceramic fibers and of self-supported 3D architectures of non-woven preforms for composites. Dr. Gouma has also developed photocatalytic blankets that float on water and produce energy from photochemical water splitting.

She has been featured as an expert in nanomaterials, ceramics, sensors, and photocatalysts in numerous press releases (Science Nation, IOP, Science press, NPR, NBC news, Fox news, Fast Company, etc.). She has published over 140 peer-reviewed articles, 18 book chapters and editorials, and a monograph. She also holds 18 patents (both US and International). She is a member of the *National Academy of Inventors*, she was a *Fulbright Scholar* to UNICAMP in Brazil, and she has received the prestigious *Richard M. Fulrath* award of The American Ceramic Society. She has been elected a *Fellow of The American Ceramic Society* (2019). Dr. Gouma was the sole Chair of the 2011 ISOEN Conference. She can be reached at: gouma.2@osu.edu. Website: <https://acrl.osu.edu>