

STEVEN C. JOHNSON, Ph.D.

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Professional Preparation

University of Wisconsin-Madison	Metallurgical Engineering	B.S.	1983
The Ohio State University	Materials Science and Engineering	M.S.	1993
The Ohio State University	Materials Science and Engineering	Ph.D.	1997

Professional Appointments

2016 – present	Central Connecticut State University, New Britain, CT <i>Associate Professor</i> (tenured), Engineering Department, School of Engineering, Science, & Technology, <i>Assistant Professor</i> ,	2021 to present. 2016 to 2021.
	University of Connecticut, Storrs, CT <i>Research Scientist</i> , Institute of Materials Science,	2019 to present.
2009 – 2015	Westinghouse Electric Company, LLC, Columbia, SC <i>Principal Materials Engineer</i> , in the PWR Fuel Technology group, Engineering Center of Excellence.	
2000 – 2009	The Pennsylvania State University DuBois Campus, DuBois, PA <i>Instructor in Engineering and Program Coordinator</i> , in the University College and School of Engineering Design, Technology, and Professional Programs, The Applied Research Laboratory, State College, PA <i>Research Associate</i> in the Metals and Ceramics Processing Department, Materials Processing Division,	2004 to 2009. 2000 to 2004.
1997 – 2000	The Boeing Company, Seattle, WA <i>Lead Engineer - Materials Analysis Laboratories</i> in the Metallurgy Group of Boeing Material Technology, Boeing Commercial Airplane division.	
1986 – 1989	Praxair Surface Technologies, Inc, Indianapolis, IN <i>Development Engineer</i>	
1984 – 1986	Wagner Castings Company, Decatur, IL <i>Ductile Foundry Metallurgist</i> , <i>Supervisor - Research and Product Development</i> ,	1986. 1984 to 1986.

Products

1. **Steven C. Johnson** and William A. Caron, “Research Towards Sintering Improvement During Press and Sinter Processing of Mg and Mg Alloy Powders”, *Magnesium Technology 2024*, The Minerals, Metals & Materials Series, A. Leonard *et. al.* (eds.) (February 03, 2024), pp. 117 - 120, [\[LINK\]](#).
2. **Steven C. Johnson** and Dylan G. Goncalves, “Magnesium and Magnesium Alloy Powder Processing Towards the Development of Near Shape Structural Materials”, *Magnesium Technology 2021*, The Minerals, Metals & Materials Series, V.M. Miller *et. al.* (eds.) (March 2021) pp. 115 - 123, [\[LINK\]](#).
3. **Steven C. Johnson** and William A. Caron, “Research into Near Shape Processing of Magnesium and Magnesium Alloy Powders”, Powder Metallurgy & Particulate Materials - 2021, Metal Powder Industries Federation, G. Falleur and R. Warzel eds., ISBN 978-1-943694-27-3 (September 2021) pp. 463-473.

4. **Steven C. Johnson**, Corey D. Clark, and Jason S. Alvarez, "Development and Analysis of Al7075 Alloy Materials Using Press and Sinter Processing", *Light Metals 2020*, The Minerals, Metals & Materials Series, A. Tomsett (ed.) (February 2020) pp. 233-240, [\[LINK\]](#).
5. P. Ashcheulov, R. Skoda, J. Skarohlid, **S.C. Johnson**, et.al., "Thin polycrystalline diamond films protecting zirconium alloy surfaces: From technology to layer analysis and application in nuclear facilities", *App. Sur. Sci.*, v359 (30 December 2015) pp. 621-628, [\[LINK\]](#).
6. **S.C. Johnson**, H. Patts, and D.M. Schuler, "Mechanical Behavior of SiC_f/SiC CMC Tubes Relative to Nuclear Fuel Cladding", paper 14348, Proceedings of the 2014 International Congress on the Advances in Nuclear Power Plants (ICAPP 2014), American Nuclear Society, (April 2014) pp. 2287-2295.
7. **Johnson, S.C.**, Henry, R.E., and Paik, C.Y., "Severe Accident Modeling of a PWR Core with Different Cladding Materials", paper 12175, Proceedings of the 2012 International Congress on the Advances in Nuclear Power Plants (ICAPP 2012), American Nuclear Society, (June 2012) pp. 1-9.
8. **S.C. Johnson**, J. Liu, and H.A. Kuhn, "Microstructure and Mechanical Properties of 3DPTM Processed M4 Tool Steel", *Advances in Powder Metallurgy & Particulate Materials – 2007*, Metal Powder Industry Federation, pp. 7-95 – 7-105 (2007).

Synergistic Activities

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|---|-----------------|
| 1. National Science Foundation, reviewer for various programs | 2005 – present. |
| 2. TMS Light Metals Division, Magnesium committee; voting member, session chair, and poster judge | 2021 – present. |
| 3. United States Advanced Ceramics Association (USACA), corporate representative | 2010 – 2015. |
| Executive Committee, vice-Chair | 2014 – 2015. |
| 4. ASTM International, committee C28 Advanced Ceramics, voting member | 2013 – 2015. |

Awards and Honors

1. 2025 Light Metals Division Magnesium Technology Best Paper Award - Fundamental Research, "*Research Towards Sintering Improvement During Press and Sinter Processing of Mg and Mg Alloy Powders*", received 24 March, 2025 [\[Link\]](#).
2. 2015 George Westinghouse Signature Award (business segment level), Westinghouse Accident Tolerant Fuel (ATF) Development, with F.A. Boylan, J.H. Choi, L. Hallstadius, L. Mastandrea, and P. Xu, received August 2015.
3. 2012 Top 5 Paper Award, *Progress in Nuclear Energy*, Volume 57, pp. 71-76, received May 2012.
4. Outstanding Poster Award, 2008 World Congress on Powder Metallurgy & Particulate Materials, Metal Powder Industry Federation, Washington DC, received June 2008.

Recent Funding

1. "2026 Technical Conference Attendance with Publication and Presentation for Professional Development", CSU/AAUP Faculty Development Grant, CCSU Foundation, Banner Index ADJOHX 08/2025 - 06/2026, \$3500, PI.
2. "Surface Science Guided Alloy Development to Achieve Free Sintering Mg Alloy Powders", CSU/AAUP University Faculty Research Grant, State of Connecticut through CSU/AAUP contract, Banner Index ARJOHU, 07/2025 – 06/2026, \$5000, PI.
3. "X-ray Photoelectron Spectroscopy and Temperature Programmed Desorption of Mg and Mg Alloy Powders", Center for Functional Nanomaterials a U.S. Department of Energy Office of Science User Facility at Brookhaven National Laboratory, Upton, NY. Proposal ID 317076, Time Request ID 328301, Resource Request ID 364111. 8 sessions allocated, awarded 04/2025 thru 04/2027.

Collaborators & Other Affiliations

S. Chakraborty, Central Connecticut State University; Wayne Daye, Kymera International; Luxfer Magtech; Damien Mangabhai, Coogee Metal Powders

Complete CV available upon request.