

Douglas A. Keszler
Curriculum Vita

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Education

Secondary School: Del City, Oklahoma public school system

Undergraduate School: Southwestern Oklahoma State University
BS in Chemistry, Valedictorian

Graduate School: Northwestern University
PhD in Chemistry

Postgraduate Experience: Northwestern University
Cornell University

Professional Appointments

Assistant Professor	Oregon State University	1985 - 1989
Visiting Scientist	Lawrence Livermore Nat'l Laboratory	1988
Associate Professor	Oregon State University	1990 - 1994
Professor	Oregon State University	1995+
Technology Director	ReyTech Corp.	1998 - 2002
Board of Directors	Brilliant Technologies, Inc.	1998 - 2007
CNRS Research Fellow	ENSC - Paris	1999 - 2000
Adjunct Professor	Oregon State University, Physics	2002+
Technology Advisor	Deep Photonics, Inc.	2003 - 2007
Chair, Chemistry Dept.	Oregon State University	2003 - 2006
Adjunct Professor	University of Oregon, Chemistry	2005+
Distinguished Professor	Oregon State University	2006+
Founder	Inpria Corporation	2008+
Director	Center for Sustainable Materials Chemistry	2011+
Board of Directors	Amorphyx Corporation	2012+

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Representative Publications, Books, and Patents

- Douglas A. Keszler and James A. Ibers, Synthesis and structure of a new ternary chalcogenide $\text{Nb}_3\text{Pd}_{0.72}\text{Se}_7$; Interrelationships in the Packing of Prisms and Planes, *Journal of the American Chemical Society* **107**, 8119 (1985).
- Douglas A. Keszler and Roald Hoffmann, Bonding and Electronic Structure of Superconducting NbPS, *Journal of the American Chemical Society* **109**, 118 (1987).
- Kathleen I. Schaffers, Theodore Alekel III, Paul D. Thompson, James R. Cox, and Douglas A. Keszler, New Structural Class of Solid-state Oxide, *Journal of the American Chemical Society* **112**, 7068-7069 (1990).
- Robert W. Smith and Douglas A. Keszler, Synthesis, Structure, and Properties of the Orthoborate $\text{SrCu}_2(\text{BO}_3)_2$, *Journal of Solid State Chemistry* **129**, 184 (1997).
- Anthony Diaz and Douglas A. Keszler, Eu^{2+} Luminescence in the Borates $\text{X}_2\text{Z}(\text{BO}_3)_2$ (X = Ba, Sr; Z = Mg, Ca), *Chemistry of Materials* **9**, 2071 (1997).
- Douglas A. Keszler, Borates for Optical Frequency Conversion, *Current Opinion in Solid State and Materials Science* **1**, 204-211 (1996).
- Douglas A. Keszler and Ning Ye, Nonlinear Optical Crystals and Their Manufacture and Use, U.S. Patent 8,062,420.
- Robert Kykyneshi, David H. McIntyre, Janet Tate, Cheol-Hee Park, and Douglas A. Keszler, Electrical and Optical Properties of Epitaxial Transparent Conductive BaCuTeF Thin Films Deposited by Pulsed Laser Deposition, *Solid State Sciences* **10**, 921-927 (2008).
- Hai Q. Chiang, John F. Wager, Randy L. Hoffman, Jao-young Jeong, Douglas A. Keszler, High Mobility Transparent Thin-film Transistors with Amorphous Zinc Tin Oxide Channel Layer, *Applied Physics Letters* **86**, 013503/1-013503/3 (2005).
- John F. Wager, Douglas A. Keszler, Rick E. Presley, *Transparent Electronics*, Springer Science (2009).
- Benjamin L. Clark and Douglas A. Keszler, Hydrothermal Dehydration of Precipitates: Convenient Synthesis Method for Solids, *Inorganic Chemistry* **40**, 1724-1725 (2001).
- Sangmoon Park, Benjamin L. Clark, Douglas A. Keszler, Jeffrey P. Bender, John F. Wager, Thomas A. Reynolds, Gregory S. Herman, Low-Temperature Thin-film Deposition and Crystallization, *Science* **297**, 65 (2002).
- Jeremy T. Anderson, Craig L. Munsee, Celia M. Hung, Tran M. Phung, Gregory S. Herman, David C. Johnson, John F. Wager, Douglas A. Keszler, Solution-processed HfSO_x and ZrSO_x Inorganic Thin-film Dielectrics and Nanolaminates, *Advanced Functional Materials* **17(13)**, 2117-2124 (2007).

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Stephen T. Meyers, Jeremy T. Anderson, Celia M. Hung, John Thompson, John, John F. Wager, Douglas A. Keszler, Aqueous Inorganic Inks for Low-Temperature Fabrication of ZnO TFTs, *Journal of the American Chemical Society* **130(51)**, 17603-17609 (2008).

Jason Stowers, Douglas A. Keszler, High Resolution, High Sensitivity Inorganic Resists, *Microelectronic Engineering* **86(4-6)**, 730-733 (2009).

Jason K. Stowers, Alan J. Telecky, Andrew Grenville, Douglas A. Keszler, Patterned inorganic layers, radiation-based patterning compositions and corresponding methods, US Patent 8,415,000.

E. William Cowell, III; Nasir Alimardani, Christopher C. Knutson, John F. Conley, Jr. , Douglas A. Keszler, Brady J. Gibbons, John F. Wager, Advancing MIM Electronics: Amorphous Metal Electrodes, *Advanced Materials* **23(1)**, 74-78 (2011).

Liping Yu, Robert Kokenyesi, Douglas A. Keszler, Alex Zunger, Inverse Design of High Absorption Thin-Film Photovoltaic Materials, *Advanced Energy Materials* **3(1)**, 43-48 (2013).

Brian Pelatt, Ram Ravichandran, John F. Wager, Douglas A. Keszler, Atomic Solid State Energy Scale, *Journal of the American Chemical Society* **133(42)**, 16852-16860 (2011).

Wei Wang, Wiemin Liu, I-Ya Chang, Lindsay A. Wills, Lev N. Zakharov, Shannon W. Boettcher, Paul H-Y. Cheong, Chong Fang, Douglas A. Keszler, Electrolytic Synthesis of Aqueous Aluminum Nanoclusters and *in-situ* Characterization by Femtosecond Raman Spectroscopy & Computations, *Proceedings of the National Academy of Sciences* **110(46)**, 18397-18401 (2013).