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Mark J. Kushner

Publications and Presentations
(May 2017)

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133. P. N. Barnes and M. J. Kushner, "Ion-ion Neutralization of Iodine in rf Inductive Discharges of Xe and I₂ Mixtures", J. Appl. Phys. 82, 2150 (1997)
Refereed Journal Publications


Refereed Journal Publications


**Book Chapters, Monographs, Major Reports, Trade Publications, Special Issue Editorials**


17. “Enabling a Future Based on Electricity Through Non-Equilibrium Plasma Chemistry”, Report of the National Science Foundation Workshop on Science Challenges in Low-Temperature Plasma Science and Engineering, August 2016. (Lead author and editor.)
**Invited General Public Lectures and Publications**


Invited Conference and Workshop Presentations with Proceedings


Invited Conference and Workshop Presentations with Abstracts Only


61. M. J. Kushner, “Optimizing Plasma Processing from $0.05/m^2$ to $1000/cm^2$,” Gaseous Electronics Meeting, Murrarangarang, Australia, February 2004.


78. M. J. Kushner, "Predictability in Low Temperature Plasmas: From Laboratory to Technology" (Plenary), 50th Division of Plasma Physics Annual Meeting, American Physical Society, Dallas, TX, November 2008.


Contributed Conference and Workshop Presentations with Proceedings


42. J. Shoeb and M. J. Kushner, “Computational Investigation of the Mechanisms of Porous Low-k Dielectric Sealing By Combined He and NH₃ Plasma Treatment,”, TECHCON’09, Austin, TX, September 2009.


44. J. Shoeb and M. J. Kushner, “Computational Investigation of the Mechanisms of Porous Low-k Dielectric Damage By Ar/O₂ And He/H₂ Plasmas During Clean and PR Strip,”, TECHCON’11, Austin, TX, September 2011.


Contributed Conference and Workshop Presentations with Abstracts Only


Contributed Conference and Workshop Presentations with Abstracts Only


331. Y. Yang, Mark Strobel, Seth Kirk, Hyacinth Cabibilb and Mark J. Kushner, "Low Pressure Plasma Fluorination of Polypropylene," 59th Gaseous Electronics Conference, Columbus, OH, October 2006.


352. N. Y. Babaeva and M. J. Kushner "Branching Patterns in Multi-atmosphere Pressure Corona Discharges with Positive and Negative Bubbles", 61st Gaseous Electronics Conference, Dallas, TX, October 2008.


Contributed Conference and Workshop Presentations with Abstracts Only

397. Z. Xiong and M. J. Kushner, “Simulation of Atmospheric Pressure Ionization Waves Propagating Through Flexible Capillary Tubes and Impinging onto a Target”, 38th Int. Conf. on Plasma Science, Chicago, IL, June 2011.


Invited Symposia, Seminar and Short-Course Presentations

6. M. J. Kushner, "Particle Simulations in Gaseous Electronics", Dept. of Chemical and Nuclear Engineering, University of New Mexico, Albuquerque, NM, 1986.


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87. M. J. Kushner, “Plasmas and Polymers: From Frito Bags to Microelectronics Fabrication.”, Chemical Engineering Department Seminar, University of Texas, Austin, TX, November 2002.


120. M. J. Kushner, "Streamers Interacting with Small Objects" Slots, Particles and Bubbles", Center for Plasma Physics, Queens University, Belfast, N. Ireland, December 2008.


M. J. Kushner, “Plasmas for Microchips, Lighting, Medicine, Jet Engines…Just Not Worth Coming to Work Without Plasmas!”, ECE Staff Symposium, University of Michigan, May 2012.


Invited Symposia, Seminar and Short Course Presentations


155. M. J. Kushner, “Plasma-Surface Interactions with Complex (Inorganic, Liquid, Living) Materials”, Bikerman Lecture, Dept. of Chemical and Biomolecular Engineering, Case Western Reserve University, Cleveland, OH, October 2016. (APS Division of Plasma Physics Distinguished Lecturer)

156. M. J. Kushner, “Plasma-Surface Interactions with Complex (Inorganic, Liquid, Living) Materials”, Department of Electrical and Computer Engineering, Texas Tech University, Lubbock, TX, November 2016. (APS Division of Plasma Physics Distinguished Lecturer)


**Patents and Registrations**


