

Erin M. Kiley: Publication List

- PATENT **Electron gun for a multiple beam klystron with magnetic compression of the electron beams**, R. Lawrence Ives, Hien T. Tran, Thuc Bui, Adam Attarian, William Tallis, John David, Virginia Forstall, Cynthia Andujar, Noah T. Blach, David B. Brown, Sean E. Gadson, Erin M. Kiley, and Michael Read. Assignee: Calabazas Creek Research, Inc. (San Mateo, CA). US Patent 8,547,006, granted October 1, 2013.
- PEER-REVIEWED
BOOKS
& JOURNALS E.M. Kiley, V.V. Yakovlev, K. Ishizaki, and S. Vaucher (2012), **Applicability study of classical and contemporary models for effective complex permittivity of metal powders**, *J. Microwave Power and Electromagnetic Energy*, vol. 46, no. 1, pp. 26–38.
- E.M. Kiley and V.V. Yakovlev (2011), **Applicability study of classical and contemporary models for effective permittivity of metal powders**, *Microwave and RF Power Applications*, Cépaduès Éditions, Junwu Tao (Ed.), pp. 314–317.
- S. Bogachev, D. Bouvard, E. Kiley, and V. Yakovlev (2011), **An iterative routine for macroscopic modeling of electromagnetic, thermal, and mechanical phenomena in microwave sintering**, *Microwave and RF Power Applications*, Cépaduès Éditions, Junwu Tao (Ed.), pp. 372–375.
- R. Ives, A. Attarian, T. Bui, M. Read, J. David, H. Tran, W. Tallis, S. Davis, S. Gadson, N. Blach, D. Brown, and E. Kiley (2009), **Computational Design of Asymmetric Electron Beam Devices**, *IEEE Trans. on Electron Devices*, vol. 56, no. 5, pp. 753–761.
- PEER-REVIEWED
CONFERENCE
PROCEEDINGS E.M. Kiley and V.V. Yakovlev (2017), **Two-Dimensional Multiphysics Model of Microwave Sintering**, *IEEE MTT-S International Microwave Symposium Digest (Honolulu, HI)*.
- E.M. Kiley and V.V. Yakovlev (2016), **Comprehensive One-Dimensional Mathematical Model of Microwave Sintering**, *IEEE MTT-S International Microwave Symposium Digest (San Francisco, CA)*.
- E.M. Kiley and V.V. Yakovlev (2015), **Reduced-Dimensional Model of Microwave Sintering**, *Proc. 17th Seminar “Computer Modeling in Microwave Power Engineering: Methods & Models for Microwave Processing of Materials” (Bled, Slovenia)*, pp. 17–18.
- P. Kopyt, E.M. Kiley, V.V. Yakovlev, S.M. Allan, M.L. Fall, and H.S. Shulman (2013), **Modeling of hybrid heating of limestone by microwaves and thermal radiation**, *Proc. 47th IMPI Microwave Power Symposium (Providence, RI)*, pp. 108–111.
- P. Kopyt, V.V. Yakovlev, E.M. Kiley, S.M. Allan, M.L. Fall, and H.S. Shulman (2012), **A new modeling technique for radiative-microwave heating and its application to hybrid thermal processing of limestone**, *Proc. 2nd Global Congress on Microwave Energy Applications (Long Beach, CA, USA)*, p. 77.
- S.M. Allan, M.L. Fall, E.M. Kiley, P. Kopyt, H.S. Shulman, and V.V. Yakovlev (2012), **Modeling of hybrid (heat radiation and microwave) high temperature processing of limestone**, *IEEE MTT-S International Microwave Symposium Digest (Montreal, Canada)*, pp. 1–4.
- P. Kopyt, V.V. Yakovlev, E.M. Kiley, S.M. Allan, M.L. Fall, and H.S. Shulman (2012), **A new modeling technique for combined heating by thermal radiation and microwaves: Application to processing of limestone**, *Proc. 14th Seminar “Computer Modeling in Microwave Engineering and Applications: Multiphysics Modeling in Microwave Power Engineering” (Bayreuth, Germany)*, p. 16.
- E.M. Kiley, V.V. Yakovlev, K. Ishizaki, and S. Vaucher (2012), **Applicability of Mixture Models to Estimation of the Effective Complex Permittivity of Metal Powders**, *Proc. 14th Seminar “Computer Modeling in Microwave Engineering and Applications: Multiphysics Modeling in Microwave Power Engineering” (Bayreuth, Germany)*, pp. 31–35.
- S. Bogachev, E.M. Kiley, D. Bouvard, and V.V. Yakovlev (2012), **An iterative macroscopic solver for coupled electromagnetic, thermal, and mechanical processes in microwave sintering**, *Proc. 14th Seminar “Computer Modeling in Microwave Engineering and Applications: Multiphysics Modeling in Microwave Power Engineering” (Bayreuth, Germany)*, pp. 28–30.
- S. Bogachev, D. Bouvard, E. Kiley, and V. Yakovlev (2011), **Coupling of computational schemes for electromagnetic, thermal and mechanical phenomena of microwave sintering**, *Proc. International Conference on Sintering (Jeju Island, Korea)*.
- E.M. Kiley and V.V. Yakovlev (2011), **Modeling of microwave ovens with perforated metal walls**, *IEEE MTT-S International Microwave Symposium Digest (Baltimore, MD)*.

E.M. Kiley and V.V. Yakovlev (2011), **Contemporary models of effective permittivity and permeability of metal powders: A comparative review**, *Proc. 13th Seminar “Computer Modeling in Microwave Engineering and Applications: Advances in Determining Material Parameters”* (Thun, Switzerland), pp. 36-43.

S. Demjanenko, K. Nowak, R. Northrup, S. Bogachev, E.M. Kiley, D. Bouvard, S.L. Weekes, and V.V. Yakovlev (2010), **Interpolation algorithms for interfacing FDTD and FEM meshes in multiphysics modeling of microwave sintering**, *Proc. 12th Seminar “Computer Modeling in Microwave Engineering and Applications: Advances in Modeling of Microwave Sintering”* (Grenoble, France), pp. 62-64.

E.M. Kiley, S.L. Weekes, V.V. Yakovlev (2009), **Coupled electromagnetic-thermal 1-D model of combined microwave convective heating with pulsing microwave energy**, *Proc. 26th Progress In Electromagnetics Research Symposium* (Moscow, Russia), pp. 402-403.

E.M. Kiley, S.L. Weekes, V.V. Yakovlev (2009), **Uniformity of temperature field via microwave energy pulsing: a MATLAB-based illustration**, *Proc. 14th International Winter School-Seminar on Microwave Electronics and Radiophysics* (Saratov, Russia), pp. 107-108.

D.A. Feldman, E.M. Kiley, S.L. Weekes and V.V. Yakovlev (2007), **Modeling of temperature fields in 1D and 2D heating scenarios with pulsing microwave energy**, *Proc. 41st Microwave Power Symposium* (Vancouver, BC, Canada), pp. 130-134.

D.A. Feldman, E.M. Kiley, S.L. Weekes and V.V. Yakovlev (2007), **2D Coupled electromagnetic-thermal models for combined convective-microwave heating in a pulsing regime**, *Proc. 9th Seminar “Computer Modeling and Microwave Power Engineering”* (Valencia, Spain), pp. 15-19.

EDITORIALS &
OTHER
CONTRIBUTIONS

J.W. Bandler and E.M. Kiley (2017), **Brevity, Clarity, Engagement: The IMS2017 Three Minute Thesis Competition**, *IEEE Microwave Magazine*, May 2017, pp. 85-87. DOI 10.1109/MMM.2017.2665324.

J.W. Bandler and E.M. Kiley (2017), **In the First Few Blinks of an Eye: The Basics of Engaging Presentations**, *IEEE Microwave Magazine*, March/April 2017, pp. 112-114, 120. DOI 10.1109/MMM.2016.2636681.