

**LIST OF PUBLICATIONS (in Russian and in English) by  
Koledintseva (Sizenova), Marina Yurjevna**

**Journal Papers**

**2009**

1. J. Zhang, J.L.Drewniak, D.J.Pommerenke, M.Y.Koledintseva, R.E.DuBroff, W. Cheng, Z. Yang, Q.B.Chen, and A.Orlandi, "Causal RLGC(f) models of transmission lines based on measured S-parameters", *IEEE Trans. Electromag. Compat.*, 2009 (accepted).
2. M. Koledintseva, J. Drewniak, R. DuBroff, K. Rozanov, and B. Archambeault, "Modeling of shielding composite materials and structures for microwave frequencies", *Progress In Electromagnetic Research B (PIER B)*, vol. 15, June 2009, pp. 197-215.
3. S.B. Narang, C. Singh, I.S. Hudiara, Y. Bai, and M.Y. Koledintseva, "Hysteresis analysis of Co-Ti substituted M-type Ba-Sr hexagonal ferrite", *Materials Letters*, Elsevier, vol. 63, no. 22, Sept. 2009, pp. 1921-1924.
4. M. Y. Koledintseva, S. K. Patil, R. W. Schwartz, W. Huebner, K. Rozanov, J. Shen, and J. Chen, "Prediction of effective permittivity of diphasic dielectrics as a function of frequency", *IEEE Trans. on Dielectrics and Electrical Insulation*, vol. 16, no. 3, June 2009, pp. 793-808.
5. S. Sun, D. Pommerenke, J. Drewniak, G. Chen, L. Xue, M. Brower, and M. Koledintseva, "A novel TDR-based coaxial cable sensor for crack/strain sensing in reinforced concrete structures", *IEEE Trans. Instrumentation and Measurements*. Accepted for publication, will be published in June 2009.
6. M. Koledintseva, J. Drewniak, Y. Zhang, J. Lenn, and M. Thoms, "Engineering of ferrite-based composite materials for shielding enclosures", *Journal of Magnetism and Magnetic Materials (JMMM)*, vol. 321, March 2009, pp. 730-733.

**2008**

7. S. Patil, M. Koledintseva, R. Schwartz, and W. Huebner, "Predictions of effective permittivity of diphasic dielectrics using an equivalent capacitance model", *Journal of Applied Physics*, vol. 104, 074108 (2008), published October 7, 2008.
8. J. Zhang, M.Y. Koledintseva, J.L. Drewniak, D.J. Pommerenke, R.E. DuBroff, Z. Yang, W. Cheng, K.N. Rozanov, G. Antonini, and A. Orlandi, "Reconstruction of dielectric material properties for dispersive substrates using a genetic algorithm", *IEEE Trans. Electromagn. Compat.*, vol. 50, no. 3, August 2008, pp. 704-714.
9. S.K. Patil, M.Y. Koledintseva, and R.W. Schwartz, "Modeling of field distribution and energy storage in diphasic dielectrics", *Applied Computational Electromagnetics Society Newsletter*, vol. 23, no. 1, March 2008, pp. 51-58.
10. M.Y. Koledintseva, J.L. Drewniak, T.P. Van Doren, D.J. Pommerenke, M. Cocchini, and D.M. Hockanson, "Method of edge currents for calculating mutual external inductance in a microstrip structure", *Progress in Electromagnetic Research (PIER)*, vol. 80, Jan. 2008, pp. 197-224.
11. M.Y. Koledintseva, J.L. Drewniak, T.P. Van Doren, D.J. Pommerenke, M. Cocchini, and D.M. Hockanson, "Mutual external inductance in stripline structures", *Progress in Electromagnetic Research (PIER)*, vol. 80, Jan. 2008, pp. 349-368.

**2007-2005**

12. M.Y. Koledintseva, R.E. DuBroff, R.W. Schwartz, and J.L.Drewniak, "Double statistical distribution of conductivity and aspect ratio of inclusions in dielectric mixtures at microwave frequencies", *Progress in Electromagnetic Research (PIER)*, vol. 77, pp. 193-214, 2007.

13. M.Y. Koledintseva and A.A. Kitaitsev, "Analysis of interaction between a crystallographically uniaxial ferrite resonator and a Hall-effect transducer", *Progress in Electromagnetic Research (PIER)* vol. 74, 2007, pp. 1-19.
14. M.Y. Koledintseva, V.V. Bodrov, I.V. Sourkova, M.M. Sabirov, and V.I. Sourkov, "Unified spectral technique application for study of radiator behavior near planar layered composites", *Progress in Electromagnetic Research (PIER)*, vol. 66, pp. 317-357, 2006.
15. M.Y. Koledintseva, S.K.R. Chandra, R.E. DuBroff, and R.W. Schwartz, "Modeling of dielectric mixtures containing conducting inclusions with statistically distributed aspect ratio", *Progress in Electromagnetic Research (PIER)*, vol. 66, pp. 213-228, 2006.
16. M.Y. Koledintseva, "Electrodynamic modeling of a 3D periodic structure containing magnetized or polarized ellipsoids", Special Issue "Metamaterials in Microwave and Optical Spectral Range", *Opto-Electronics Review*, vol. 14, no. 3, pp. 253-262, Sept. 2006.
17. M.Y. Koledintseva, R.E. DuBroff, and R.W. Schwartz, "A Maxwell Garnett model for dielectric mixtures containing conducting particles at optical frequencies", *Progress in Electromagnetic Research (PIER)* vol. 63, pp. 223-242, 2006.
18. M.Y. Koledintseva, "Modulation of mm-waves by an acoustically controlled monocrystalline hexagonal ferrite resonator", *Journal of Electromagnetic Waves and Applications*, vol.20, no. 1, Jan. 2006, pp.127-133.
19. M.Y. Koledintseva and A.A. Kitaitsev, "Modulation of millimeter waves by acoustically controlled hexagonal ferrite resonator", *IEEE Trans. on Magnetics*, vol. 41, no.8, Aug. 2005, pp. 2368-2376.
20. M.Y. Koledintseva, J.L. Drewniak, D.J. Pommerenke, K.N. Rozanov, G. Antonini, and A. Orlandi, "Wideband Lorentzian media in the FDTD algorithm", *IEEE Trans. on Electromag. Compat.*, vol. 47, no. 2, May 2005, pp. 392-398.
21. V.V. Bodrov, V.I. Sourkov, M.M. Sabirov, I.V. Sourkova, and M.Y. Koledintseva, "Calculation of power fluxes, radiation efficiency, and absorption efficiency in multilayered dielectric structures", *Radio Engineering Notebooks (Radiotekhnicheskie tetradi)*, Moscow, Russia: MPEI(TU), April 2005 (in Russian).
22. K.N. Rozanov, Z.W. Li, L.F. Chen, and M.Y. Koledintseva, "Microwave Permeability of Co<sub>2</sub>Z Composites", *Journal of Applied Physics*, vol. 97, Art. No. 013905, January, 2005.

#### 2004-2000

23. M. Koledintseva, A. Kitaitsev, V. Konkin, and V. Radchenko, "Spectrum visualization and measurement of power parameters of microwave wideband noise", *IEEE Trans. on Instrum. Measur.*, vol. 53, no. 4 August, 2004, pp. 1119-1124.
24. M.Y. Koledintseva, K.N. Rozanov, A. Orlandi, and J.L. Drewniak, "Extraction of the Lorentzian and Debye Parameters of Dielectric and Magnetic Dispersive Materials for FDTD Modeling", *Journal of Electrical Engineering, IEE Slovak*, vol.53, no.9/S, 2002, pp. 97-100.
25. F. Graebner, G. Teichert, C.H. Knedlik, S. Hildenbrand, H. Romanus, A. Hungsberg, and M. Koledintseva, "Simulation of layer-sequence of Ni-Zn ferrite thin films and multilayers for EMC applications at frequencies above 1000 MHz", *Mat.-wiss. u. Werkstofftechnik, Wiley VCH Verlag GmbH. D-69451 Weinheim*, vol. 34, no. 7, pp. 603-607, July 2003.
26. X. Ye, M.Y. Koledintseva, M. Li, and J.L. Drewniak, "FDTD Modeling and Design of a DC Power-Bus with Dispersive Media and Surface Mount Technology Components", *IEEE Trans. Electromag. Compat.*, vol.43, no.4, November, 2001, pp. 579-587.

27. A.Kuzhakhmetov, A.Jenkins, D.Hyland, M.Koledintseva, and D.Dew-Hughes, "Frequency dispersion of tunability and losses in ferrite/superconducting structures", *Inst. Phys. Conf. Applied Superconductivity*, no. 167, pp. 331-334, 2000.

#### **Before 2000**

28. A.A. Kitaytsev and M.Y. Koledintseva, "Physical and technical bases of using ferromagnetic resonance in hexagonal ferrites for electromagnetic compatibility problems", *IEEE Trans. Electromag. Compat.*, vol. 41, no. 1, Feb. 1999, pp.15-21
29. M.Y. Koledintseva, "Analysis of the accuracy of the noise spectrum envelope reproduction by panoramic measurer of spectrum power density", *Transactions of Moscow Power Engineering Institute*, no. 152, Moscow, MPEI, 1987, p.130-136, (in Russian).
30. A.A. Kitaytsev, M.Y. Koledintseva, "Formation of the frequency selectivity curve of the gyromagnetic converter", *Transactions of Moscow Power Engineering Institute*, no. 237, Moscow, Ed. MPEI, 1990, pp.38-44, (in Russian).
31. M.Y. Sizenova, "Computation of the phase spectrum of the longitudinal component of magnetization vector of the ferrite sample at alternating magnetizing field", *Transactions of Moscow Power Engineering Institute "Gyromagnetic Devices and Antennas"*, no. 99, Moscow: MPEI, 1986, pp. 23-28 (in Russian).

#### **International Symposia and Conferences Proceedings**

##### **2009**

32. M.Y. Koledintseva, J.L. Drewniak, Y. He, and B. Matlin, "Modelling of absorbing material containing magnetic platelets", 2009 EMC Symposium in Kyoto, Japan, July 20-24, 2009.
33. J. Xu, M.Y. Koledintseva, Y. He, R.E. DuBroff, J.L. Drewniak, and B. Matlin, "Measurement of electromagnetic parameters and FDTD modelling of ferrite cores", *Proc. IEEE Symp. Electromag. Compat.*, Aug. 17-21, Austin, TX, 2009, pp. 83-88.
34. A. Koul, P. K.R. Anmula, M.Y. Koledintseva, J.L.Drewniak, and S. Hinaga, "Improved technique for extracting parameters of low-loss dielectrics on printed circuit boards", *Proc. IEEE Symp. Electromag. Compat.*, Aug. 17-21, Austin, TX, 2009, pp. 191-196.
35. A. Rajagopal, B. Achkir, M. Koledintseva, A. Koul, and J. Drewniak, "Material parameter extraction using time-domain TRL (t-TRL) Measurements", *Proc. IEEE Symp. Electromag. Compat.*, Aug. 17-21, Austin, TX, 2009, pp. 280-285.
36. E.V.Ivanova, M.Y. Koledintseva, and K.N.Rozanov, "Effective permittivity of a regular structure of conductive films", *The 26th Progress In Electromagnetic Research Symposium PIERS 2009*, August 18-21, Moscow, 2009, Book of Abstracts, p. 887.
37. M.Y. Koledintseva, A. Koul, P.K.R. Anmula, J.L. Drewniak, S. Hinaga, E. Montgomery, and K.N. Rozanov, "Separating dielectric and conductor loss for rough striplines in printed circuit boards", *The 26th Progress In Electromagnetic Research Symposium PIERS 2009*, August 18-21, Moscow, 2009, Book of Abstracts, p. 213.
38. S. Hinaga, M. Koledintseva, P. Anmula, and J. Drewniak, "Effect of Conductor Surface Roughness upon Measured Loss and Extracted Values of PCB Laminate Material Dissipation Factor", *Proc. IPC 2009 APEX / EXPO*, March 31–April 2, 2009, Las Vegas, USA. **(Best paper award)**

#### 2008-2007

39. M. Koledintseva, J. Drewniak, and Y. Zhang, "Engineering of ferrite-based composite materials for shielding enclosures", Book of Abstracts, Moscow Int. Symp. on Magnetism MISM-2008, June 20-25, 2008, p. 387.
40. S. Patil, M. Koledintseva, R. Schwartz, and W. Huebner, "Modeling of electric field distribution and its correlation with breakdown strength in diphasic dielectrics", Extended Abstracts of Int. Symp. Applications of Ferroelectrics, ISAF 2008, Santa Fe, New Mexico, Feb. 24-27, 2008.
41. M.Y. Koledintseva, "Effect of statistical distribution of inclusion parameters on microwave permittivity of carbon-filled composites", *Proc. 16 Int. Conf. Radiolocation and radio communication*, Dec.7-11, 2008, Firsanovka, Moscow Region, Russia, Ed. UNC-1 MPEI(TU), pp. 416-426.
42. M.Y. Koledintseva, "Dielectric mixtures with statistically distributed orientation of inclusions", *Proc. 16 Int. Conf. Radiolocation and radio communication*, Dec.7-11, 2008, Firsanovka, Moscow Region, Russia, Ed. UNC-1 MPEI(TU), pp. 427-443.
43. M.Koledintseva, V.Bodrov, M.Sabirov, I.Sourkova, and V.Sourkov, "Behavior of elementary radiators near composite layers", *Proc. 3rd Int. Conf. Electromagnetic Near-Field Characterization and Imaging, ICONIC-2007*, June 27-29, 2007, St. Louis, Missouri, USA, pp. 147-152.
44. A.A. Kitaitsev, G.N. Zhumabaeva, and M.Y. Koledintseva, "Method of measuring permittivity of composite materials with hexagonal ferrite inclusions", *Int. IEEE Symp. Electromag. Compat.*, Honolulu, Hawaii, USA, 8-13 July, 2007.
45. D. Wu, R. Qiang, J. Chen, C. Liu, M. Koledintseva, J.Drewniak, and B.Archambeault, "Numerical modeling of periodic composite media for electromagnetic shielding application", *Int. IEEE Symp. Electromag. Compat.*, Honolulu, Hawaii, USA, 8-13 July, 2007.
46. M. Koledintseva, S. Chandra, J.Drewniak, and J.Lenn, "Engineering of absorbing gaskets between metal plates", *Int. IEEE Symp. Electromag. Compat.*, Honolulu, Hawaii, USA, 8-13 July, 2007.
47. J.Y.Huang, M.Y.Koledintseva, J.L.Drewniak, R.E.DuBroff, P.C.Ravva, and K.N.Rozanov, "Engineering of a microwave shielding structure containing metafilms embedded in a composite medium", *Proc. 15 Int. Conf. Spin-Electronics and Gyrovector Electrodynamics (Int. Conf. Electrodynamics of Continuous Media)*, 2007, Firsanovka, Moscow Region, Russia, Ed. UNC-1 MPEI(TU), pp. 537-549.
48. M.Y.Koledintseva, J.L.Drewniak, A.A.Kitaitsev, and A.A.Shinkov, "Modeling and experimental study of ferrite-graphite mixtures at microwave frequencies", *Proc. 15 Int. Conf. Spin-Electronics and Gyrovector Electrodynamics (Int. Conf. Electrodynamics of Continuous Media)*, 2007, Firsanovka, Moscow Region, Russia, Ed. UNC-1 MPEI(TU), pp. 555-566.
49. M.Y.Koledintseva, S.Patil, and R.W.Schwartz, "Method of partial capacitances for predicting effective permittivity of diphasic dielectric composites", *Proc. 15 Int. Conf. Spin-Electronics and Gyrovector Electrodynamics (Int. Conf. Electrodynamics of Continuous Media)*, 2007, Firsanovka, Moscow Region, Russia, Ed. UNC-1 MPEI(TU), pp. 567-581.

#### 2006-2005

50. R.Schwartz, S. Patil, and M. Koledintseva, "Dielectric contrast effects on the energy density of diphasic composites", Abstracts, International Symposium on Advanced Dielectric Materials and Electronic Devices, Meeting Material Science and Technology, 15-19 Oct. 2006, Cincinnati, OH, USA.
51. S. Patil, M. Koledintseva, and R. Schwartz, "Modeling of Electric Field Distribution and Energy Storage in Diphasic Dielectrics", *Proc. Int. 15th IEEE Symp. Applications of Ferroelectrics, ISAF 2007*, Sunset Beach, NC, USA, July 30 - August 3, 2006, pp. 307-310.

52. M.Y.Koledintseva, P.C.Ravva, J.L.Drewniak, A.A.Kitaitsev, and A.A.Shinkov, "Engineering of ferrite-graphite composite media for microwave shields", *Proc. Int. IEEE Symp. Electromag. Compat.*, August 2006, Portland, OR, USA, Session Electromagnetic Interference IV (TH-AM-II), Vol. 3, 14-18 Aug. 2006, pp. 598 -602.
53. R.Qiang, J.Chen, J.Huang, M.Koledintseva, R. DuBroff, J.Drewniak, and F.Yang, "Numerical Analysis of Sandwiched Composite – FSS Structures", *Proc. Int. IEEE Symp. Electromag. Compat.*, Portland, OR, USA, vol. 3, 14-18 Aug. 2006, pp. 742 -746.
54. M.Y. Koledintseva, "Interaction of electromagnetic waves with small ferrite resonators in a multimode regime" *Proc. 14 Int. Conf. Spin-Electronics and Gyrovectro Electrostatics, Section of Int. Conf. "Electromagnetic Fields and Materials"*, December 2005, Firsanovka, Moscow Region, Russia, Ed. UNC-1 MPEI(TU), 2006, pp. 106-128.
55. J.Zhang, M.Y.Koledintseva, D.J. Pommerenke, J.L.Drewniak, K.N.Rozanov, G.Antonini, and A.Orlandi, "Extraction of dielectric material parameters for dispersive substrates using a genetic algorithm", *Proc. 2006 IEEE Instrumentation and Measurement Technology Conference (IMTC)*, April 24-27, 2006, Sorrento, Italy, pp. 462-467.
56. J.Y.Huang, P.C.Ravva, M.Y.Koledintseva, R.E.DuBroff, J.L.Drewniak, B.Archambeault, and K.N.Rozanov "Design of a metamaterial-composite dielectric shielding structure using a genetic algorithm", *Proc. Progress In Electromagnetic Research Symposium (PIERS 2006 Cambridge)*, Cambridge, MA, USA, March 26-29, 2006, pp. 297-301.
57. J.Y.Huang, P.C.Ravva, M.Y.Koledintseva, R.E.DuBroff, J.L.Drewniak, B.Archambeault, and K.N.Rozanov "Design of a metamaterial-composite dielectric shielding structure using a genetic algorithm", *Progress In Electromagnetic Research Symposium (PIERS 2006 Cambridge), Abstracts*, Cambridge, MA, USA, March 26-29, 2006, pp. 332.
58. M.Y.Koledintseva, "Frequency-selective power transducers "hexagonal ferrite resonator – semiconductor element", *Proc. Progress in Electromagnetic Research Symposium (PIERS 2006 Cambridge)*, Cambridge, MA, USA, March 26-29, 2006, pp.241-245.
59. M.Y.Koledintseva, "Frequency-selective power transducers "hexagonal ferrite resonator – semiconductor element", *Progress in Electromagnetic Research Symposium (PIERS 2006 Cambridge), Abstracts*, Cambridge, MA, USA, March 26-29, 2006, p.245.
60. M.Y. Koledintseva, P.C. Ravva, J.L. Drewniak, M.Sabirov, V.V. Bodrov, I.V. Sourkova, and V.I. Sourkov, "Power absorption of near field of elementary radiators in proximity of a composite layer", *Proc. Progress in Electromagnetic Research Symposium (PIERS 2006 Cambridge)*, Cambridge, MA, USA, March 26-29, 2006, pp. 15-21.
61. M.Y. Koledintseva, P.C. Ravva, J.L. Drewniak, M.Sabirov, V.V. Bodrov, I.V. Sourkova, and V.I. Sourkov, "Power absorption of near field of elementary radiators in proximity of a composite layer", *Progress in Electromagnetic Research Symposium (PIERS), Abstracts*, Cambridge, MA, USA, March 26-29, 2006, p. 25.
62. K.N.Rozanov, L.F.Chen, Z.W.Li, and M.Y.Koledintseva, "Microwave permeability and Snoek's law in CO<sub>2</sub>Z composites", *Proc. of the 3<sup>rd</sup> International Conf. on Materials for Advanced Technologies ICAMT-2005 and 9<sup>th</sup> Int. Conf. on Advanced Materials ICAMS-2005, Symposium R "Electromagnetic Materials"*, 3-8 July 2005, Singapore, pp. 121-124.
63. M.Y.Koledintseva, P.C.Ravva, R.E.DuBroff, J.L.Drewniak, K.N.Rozanov, and B.Archambeault, "Engineering of Composite Media for Shields at Microwave Frequencies", *Proc. IEEE Symp. Electromag. Compat.*, August 2005, Chicago, IL, vol. 1, pp. 169-174.
64. M.Y.Koledintseva, "Modulation of mm-waves by an acoustically controlled monocrystalline hexagonal ferrite resonator", *Progress in Electromagnetic Research Symposium (PIERS)*, Hangzhou, China, 22-26 Aug. 2005, Abstracts, p.311.

65. M.Y.Koledintseva, "Modulation of mm-waves by an acoustically controlled monocrystalline hexagonal ferrite resonator", *Proc. Progress in Electromagnetic Research Symposium (PIERS)*, Hangzhou, China, 22-26 Aug. 2005, pp.281-284.

#### 2000-2004

66. M. Koledintseva, J.Zhang, J.L.Drewniak, and K.Rozanov, "Application of a genetic algorithm for approximating frequency characteristics of multiphase mixtures", *Proc. 13 Int. Conf. Spin-Electronics and Gyrovector Electrodynamics*, Dec. 3-5, 2004, Firsanovka, Moscow Region (*Section of 17 Int. Conf. Electromagnetic Fields and Materials EMFM*, Warsaw, Poland, May 17-19, 2004), Moscow, Russia: UNC-1 MPEI(TU), 2004, pp. 404-417.
67. C.A.Grosvenor, R.Johnk, D.Novotny, S.Candales, J.Baker-Jarvis, M.Janezic, J.Drewniak, M.Koledintseva, J.Zhang, P.Ravva, "Electrical measurements using a free-field, ultra-wideband system", *2004 Annual Report Conference on Electrical Insulation and Dielectric Phenomena*, pp. 174-177.
68. K.N.Rozanov, L.F.Chen, Z.W.Li, and M.Y.Koledintseva, "Microwave permeability and Snoek's law in CO<sub>2</sub>Z composites", *XI Int. Conference on Composites/Nano Engineering (ICCE-11)*, August 8-14, 2004, South Carolina, USA.
69. J. Zhang, M.Y. Koledintseva, J.L. Drewniak, G. Antonini, A.Orlandi, and K. N. Rozanov, "Genetic algorithm application for extracting R,L,G,C parameters of dispersive planar transmission lines", *Proc. IEEE Symp. Electromag. Compat.*, 9-13 Aug. 2004, Santa Clara, CA, vol. 2, pp.572-576.
70. M. Y. Koledintseva, J. Wu, J. Zhang, J. L. Drewniak, and K. N. Rozanov, "Representation of permittivity for multi-phase dielectric mixtures in FDTD modeling", *Proc. IEEE Symp. Electromag. Compat.* 9-13 Aug. 2004, Santa Clara, CA, vol. 1, pp.309-314.
71. J. Zhang, M.Y. Koledintseva, and J.L. Drewniak, "Extracting R,L,G,C parameters of microstrip and striplines with dispersive substrates", *Int. Symposium on Electromagnetic Compatibility EMC'04*, Sendai, Japan, 2004, vol. 1, paper 1A4-1, pp.45-48.
72. J. Zhang, K. Hu, M. Koledintseva, J. Drewniak, and R. Johnk, "Application of a genetic algorithm for extracting parameters of dispersive curves for a planar composite layer", *Progress In Electromagnetic Research Symposium PIERS-04*, Pisa, Italy, March 28 - 31, 2004.
73. M. Sabirov, I. Sourkova, V. Sourkov, V. Bodrov, and M. Koledintseva, "Power characteristics of radiators in multilayered dielectric structures", *Progress In Electromagnetic Research Symposium PIERS-04*, Pisa, Italy, March 28 - 31, 2004, pp. 409-412.
74. J. Zhang, J. Wu, M. Koledintseva, J. Drewniak, and K. Rozanov, "Development of an FDTD tool for modeling of dispersive media". Part I. "Material parameters and updating equations", *Proc. 12 Int. Conf. On Spin-Electronics and Gyrovector Electrodynamics, Section of Int. Conf. "Electromagnetic Fields and Materials"*, December, 19-21, 2003, Moscow, Firsanovka, Publisher UNC-1 MPEI (TU), 2003, pp. 692-710.
75. J. Zhang, J. Wu, M. Koledintseva, J. Drewniak, and K. Rozanov, "Development of an FDTD tool for modeling of dispersive media". Part II. "Examples of the EZ-FDTD modeling and measurements", *Proc. 12 Int. Conf. On Spin-Electronics and Gyrovector Electrodynamics, Section of Int. Conf. "Electromagnetic Fields and Materials"*, December, 19-21, 2003, Moscow, Firsanovka, Publisher UNC-1 MPEI (TU), 2003, pp. 711-725.
76. M.Y.Koledintseva, A.A.Kitaytsev, and V.A.Konkin, "Microwave wideband noise spectrum visualization and power parameters measurement", *Proc. IEEE Int. Instrum. Measur. Techn. Conf. IMTC'2003*, Veil, Colorado, 20-22 May 2003, vol.2, pp.1228-1232.

77. G. Liu, Y.Ding, C.Chen, R.Kautz, J.L.Drewniak, D. Pommerenke, and M.Y.Koledintseva, "A Dual-Current-Probe Method for Characterizing Common-Mode Loop Impedance", *Proc. IEEE Int. Instrum. Measur. Techn. Conf.*, Veil, Colorado, 20-22 May 2003, vol.2, pp.1239-1244.
78. M.Y.Koledintseva, G.Antonini, J.Zhang, A.Orlandi, K.N. Rozanov, and J.L.Drewniak, "Reconstruction of the parameters of Debye and Lorentzian dispersive media using a genetic algorithm", *Proc. Int. IEEE Electromag. Compat. Symp.*, Boston, August 18-22, 2003, vol. 2, pp. 898-903.
79. J.Wu, M.Y.Koledintseva, and J.L.Drewniak, "FDTD modeling of structures containing dispersive isotropic magnetic materials", *Proc. Int. IEEE Electromag. Compat. Symp.*, Boston, August 18-22, 2003, vol. 2, pp. 904-909.
80. F.Graebner, G.Teichert, C.Knedlik, S.Hildenbrand, F.Romanus, A.Hungsberg, M.Koledintseva, "Untersuchung zur Schichtfolge eines Multilayerschichtsystems NiZn Ferrit / Si fuer Hoechstfrequenzleiterplatten im Frequenzbereich groesser 1000 MHz", *47 Internationales Wissenschaftliches Kolloquium "Mechanical Engineering and Nanotechnology - The High Technologies of the 21st Century"*, September 23 -26, 2002, Technische Universitaet Ilmenau, Germany.
81. J. Wu, M. Y. Koledintseva, and J. L.Drewniak, "FDTD Modeling of Structures Containing Dispersive Isotropic Magnetic Materials", *Proc. XI International conference on spin-electronics and gyrovectorelectrodynamics*, December 20-23, 2002, Firsanovka, Moscow Region, Publisher UNC-1 MPEI (TU), pp. 536-546.
82. M.Y. Koledintseva, "Representation of Permittivity of Two-Phase Dielectric Mixtures for FDTD Modeling", *Proc. XI International conference on spin-electronics and gyrovectorelectrodynamics*, December 20-23, 2002, Firsanovka, Moscow Region, Publisher UNC-1 MPEI (TU), pp. 524-535.
83. M.Y.Koledintseva, K.N.Rozanov, J.L.Drewniak, and G.Di Fazio, "Restoration of the Lorentzian and Debye Curves of Dielectrics and Magnetics for FDTD Modeling", *Proc. EMC EUROPE 2002 - 5th International Symposium on Electromagn. Compat.* September 9-13, 2002, Sorrento, Italy, paper # PD27, pp. 687-692.
84. M.Y. Koledintseva, D.J.Pommerenke, and J. L. Drewniak, "FDTD Analysis of Printed Circuit Boards Containing Wideband Lorentzian Dielectric Dispersive Media", *Proc. Int. IEEE Symp. Electromag. Compat.*, Minnesota, 2002, V. 2, pp. 830-833.
85. M.Y. Koledintseva, D. Hockanson, J.L. Drewniak, and T.P. Van Doren, "External Parasitic Inductance in Microstrip and Stripline Geometries of Finite Size", *Proc. Int. IEEE Symp. Electromag. Compat.*, Minnesota, 2002, V.1, pp. 244-248.
86. M.Y.Koledintseva, K. N. Rozanov, A. Orlandi, and J. L. Drewniak, "Extraction of the Lorentzian and Debye Parameters of Dielectric and Magnetic Dispersive Materials for FDTD Modeling", *16th Conf. Electromagnetic Fields and Materials*, Bratislava, Slovakia, 11-13 Sept. 2002, FEI STU Bratislava, 2002, p.39.
87. M.Koledintseva, "Design Equations for Traces Near Edges", Presentation at the *UMR EMC Consortium*, University of Missouri-Rolla, Rolla, MO, USA, May 2002.
88. M.Y.Koledintseva, "Gyromagnetic Composite Material as Lorentzian Medium for Numerical Modeling Using FDTD Technique", *Proc. 4 Int. Symp. Electromagnetic Compatibility and Electromagnetic Ecology*, St. Petersburg, June 19-21, 2001 (in Russian).
89. M.Y.Koledintseva, "Composite Gyromagnetic Material as a Lorentzian Medium for FDTD Modeling", *URSI Int. Symp. Electromagnetic Theory*, Victoria, Canada, May 13-17, 2001, MN-T 09.05, pp. 388-390.
90. M.Y.Koledintseva, "Effective Constitutive Parameters of Gyromagnetic Absorbing Mixtures for FDTD Modeling", *Proc. 14<sup>th</sup> Int. Zurich Symposium and Technical Exhibition on Electromagnetic Compatibility*, February 20-22, 2001, paper 87M8, pp. 465-468.

91. M.Y.Koledintseva, "Application of Recursive Convolution for FDTD Modeling of Lorentzian Gyromagnetic Media", *Proc. 10<sup>th</sup> Int. Conf. Spin Electronics*, November, 2001, Moscow Region, Firsanovka, p.516-521.
92. M.Y.Koledintseva, "Inductive Coupling in Microstrip and Stripline Structures with Narrow Ground Plane", *Proc. 10<sup>th</sup> Int. Conf. Spin Electronics*, November, 2001, Moscow Region, Firsanovka, p.522-529.
93. M.Y.Koledintseva and G. Di Fazio, "Extraction of the Lorentzian and Debye parameters from measurement data in a few frequency points", *Proc. 10<sup>th</sup> Int. Conf. Spin Electronics*, November, 2001, Moscow Region, Firsanovka, p. 530-542.
94. M.Y.Koledintseva, J.L.Drewniak, and X. Ye, "Representation of gyromagnetic composite media for FDTD modeling", *Proc. Int. IEEE Symp. Electromag. Compat.*, Montreal, August 2001, vol. 1, pp. 555-558.
95. M.Y.Koledintseva, A.A.Kitaytsev, V.A.Konkin, and V.F. Radchenko, "High-power microwave wideband random signal measurement and narrowband signal detection against the noise background", *Proc. Int. IEEE Symp. Electromag. Compat.*, Montreal, August, 2001, V. 2, p. 1027-1029.
96. J. L. Drewniak, M. Koledintseva, R. E. DuBroff, and D. Berg, "FDTD modeling of period circuit board radiation for passive detection of electronic mines, timers, and fuses", *Proceedings of SPIE* Vol. #4394, April 16-20 2001.
97. M.Y.Koledintseva, "FDTD modeling of gyromagnetic composite media", *Proc. 9<sup>th</sup> Int. Conf. Spin Electronics (Section of ICMF'2000, Poland)*, 10-12 November, 2000, Moscow Region, Firsanovka, pp.322-331.
98. L.K.Mikhailovsky, A.A.Kitaytsev, A.A.Shinkov, and M.Y.Koledintseva, "Advances of gyromagnetic electronics for EMC problems", *Proc. 9<sup>th</sup> Int. Conf. Spin Electronics (Section of ICMF'2000, Poland)*, 10-12 November, 2000, Moscow Region, Firsanovka, pp. 399-406.
99. M.Y.Koledintseva, "Electromagnetic shielding and absorbing materials", *Proc. 9<sup>th</sup> Int. Conf. Spin Electronics (Section of ICMF'2000, Poland)*, 10-12 November, 2000, Moscow Region, Firsanovka, pp. 311-321.
- 100.L.K. Mikhailovsky, A.A. Kitaytsev, M.Y. Koledintseva, and V.P. Cheparin, "Research and design of gyromagnetic media and devices on their base for EMC and ecology problems at microwaves", *Proc. 9<sup>th</sup> Int. Conf. Spin Electronics (Section of ICMF'2000, Poland)*, 10-12 November, 2000, Moscow Region, Firsanovka, pp. 407-409.
- 101.X.Ye, J.Fan, M.Koledintseva, and J.L.Drewniak, "DC power bus design with FDTD modeling including dispersive media", *9<sup>th</sup> Topical Meeting on Electrical Performance of Electronics Packaging*, Scottsdale, AZ, pp. 55-58, October 23-25, 2000.
- 102.L.Mikhailovsky, A.Kitaytsev, M.Koledintseva, and V.Cheparin, "Research and design of gyromagnetic media and devices on their base for EMC and ecology problems", *Proc. 15<sup>th</sup> Wroclaw Symp. and Exhib. Electromagnetic Compatibility EMC-2000*, June 27-30, 2000, pp.571-574.
- 103.L.K.Mikhailovsky, A.A.Kitaytsev, and M.Y.Koledintseva, "Advances of Gyromagnetic Electronics for EMC Problems", *Proc. Int. IEEE Symp. Electromag. Compat.*, Washington, DC, August 21-25, 2000, V.2, pp. 773-778.

#### 1995-1999

- 104.A.A.Kitaytsev, M.Y.Koledintseva, V.A.Konkin, V.P.Cheparin, and A.A.Shinkov, "Application of Composite Gyromagnetic Materials for Absorbing Radiation Produced by Microwave Oven", *Proc.*

- Int. Symp. Electromagnetic Compatibility EMC'99* Tokyo, May 17-21, 1999, paper 19P204, pp. 405-407.
105. A.A. Kitaytsev, M.Y. Koledintseva, and V.A. Konkin, "Reproduction of Spectrum Envelope of Microwave Wide-Band Noise and Detection of a Narrow-Band Signal in It", *Proc. 9 Int. Conf. "Microwave Engineering and Telecommunication Technology", CriMiCo'99*, Sevastopol, Crimea, Ukraine, 13-17 Sept., 1999, presentation No 7.9, p. 356-357 (in Russian and English).
  106. M.Y. Koledintseva, A.A. Kitaytsev, and A.A. Shinkov. Electromagnetic parameters of composite containing high-anisotropic gyromagnetic particles. *URSI General Assembly, Section "Materials Measurements"*, August 13-21, 1999, Toronto, Canada, A2.14.
  107. A. Kuzhakhmetov, A. Jenkins, D. Hyland, M. Koledintseva, and D. Dew-Hughes, "Frequency dispersion of tunability and losses in ferrite/superconducting structures", *Inst. Phys. Conf. Ser. No 167, pp. 331-334, 4th European Conference on Applied Superconductivity, EUCAS'99*, September 14-17, 1999, Barcelona, Catalonia, Spain.
  108. L.K. Mikhailovsky, A.A. Kitaytsev, V.P. Cheparin, and M.Y. Koledintseva, "Solution of present-day problems of electromagnetic compatibility by means of spin currentless electronics and non-phase electrodynamics", *Proc. 8<sup>th</sup> Int. Conf. On Spin Electronics (Section of ICMF'2000, Poland)*, Moscow Region, Firsanovka, 13-16 Nov. 1999, p.327-349 (in Russian).
  109. A.A. Kitaytsev, M.Y. Koledintseva, V.P. Cheparin, and Shinkov, "Electrodynamic parameters of composite gyromagnetic material based on hexagonal ferrites", *Proc. URSI Symp. Electromagnetic Theory EMT'98*, Greece, Thessaloniki, May 1998, v.2, p.790-793.
  110. M.Y. Koledintseva and A.A. Kitaytsev, "The control of gyromagnetic power & frequency converter selectivity curve for panorama frequency-selective microwave measuring devices", *14<sup>th</sup> Int. Wroclaw Symp. and Exhib. Electromagn. Compat. EMC'98*, June 23-25, 1998, Wroclaw, Poland, p.210-214.
  111. A.A. Kitaytsev, M.Y. Koledintseva, and A.A. Shinkov, "Filtering of unwanted microwave radiation by means of composite gyromagnetic thick films", *14<sup>th</sup> Int. Wroclaw Symp. and Exhibition on Electromagnetic Compatibility EMC'98*, June 23-25, 1998, Wroclaw, Poland, p. 385-387.
  112. A. Kitaytsev, M. Koledintseva, and A. Shinkov, "Effective permittivity and permeability of composite gyromagnetic material with hexagonal ferrite filler", *43 Scientific Colloq. Technical Univ. Ilmenau*, 21-24 Sept. Germany, 1998. Section C3.5.4, V.3, pp. 451-455.
  113. M.Y. Koledintseva and A.A. Kitaytsev, "Millimeter wave signal detection by means of monocrystal hexagonal ferrite ellipsoid", *3<sup>rd</sup> Int. Kharkov Symp. "Physics and Engineering of Millimeter and Submillimeter Waves" MSMW'98*, Ukraine, Kharkov, Sept. 15-17, 1998.
  114. A.A. Kitaytsev, M.Y. Koledintseva, and A.A. Shinkov, "Microwave filtering of unwanted oscillations on base of hexagonal ferrite composite thick films", *IEEE 1998 Int. Symp. Electromag. Compat.*, August 24-28, Denver, CO, USA, V. 1, pp. 578-582.
  115. M.Y. Koledintseva, A.A. Kitaytsev, and A.A. Shinkov, "Effective permittivity and permeability of composite hexagonal ferrite material", *Proc. 8<sup>th</sup> Int. Conference "Microwave Engineering and Telecommunications Technologies" CriMiCo'98*, Sevastopol, Ukraine, 14-16 Sept., 1998, vol.2 pp. 533-534 (in Russian).
  116. A.A. Kitaytsev, M.Y. Koledintseva and L.K. Mikhailovsky, "Review of applied research and engineering design on base of quantum spin-electronics and non-phase electrodynamics", *Proc. 14<sup>th</sup> Int. Conf. Gyromagnetic Electronics and Electrodynamics (Microwave Ferrites), ICMF'98*, Nov. 13-16, 1998, Moscow (Firsanovka), Russia, vol.2, pp. 30-46 (in Russian).
  117. A. Kitaytsev, M. Koledintseva, and A. Shinkov, "Effective parameters of composite hexagonal ferrite material", *Proc. 14<sup>th</sup> Int. Conf. Gyromagnetic Electronics and Electrodynamics (Microwave Ferrites), ICMF'98*, Nov. 13-16, 1998, Moscow (Firsanovka), Russia, vol.2, pp. 271-276.

118. A.A. Kitaytsev, M.Y. Koledintseva, V.A. Konkin, and A.A. Shinkov, "Application of Composite Gyromagnetic Materials in Protection Systems of Microwave Ovens", *Proc. 14<sup>th</sup> Int. Conf. Gyromagnetic Electronics and Electrodynamics (Microwave Ferrites)*, ICMF'98, Nov. 13-16, 1998, Moscow (Firsanovka), Russia, vol.2, pp. 279-287. (in Russian).
119. A.A. Kitaytsev, M.Y. Koledintseva, A.A. Shinkov, "Application of single- and multilayered composite gyromagnetic thick films for microwave oscillations filtering", *Proc. 7<sup>th</sup> Int. Conference "Microwave Engineering and Telecommunications Technologies" CriMiCo'97*, Sevastopol, Ukraine, 14-17 Sept., 1997, pp. 127-128 (in Russian).
120. A.A. Kitaytsev and M.Y. Koledintseva, "Modulation of millimeter waves by means of hexagonal ferrite monocrystal resonator and piezoceramic element", *Proc. 7<sup>th</sup> Int. Conference "Microwave Engineering and Telecommunications Technologies" CriMiCo'97*, Sevastopol, Ukraine, 14-17 Sept., 1997, pp. 611-612 (in Russian).
121. A.A. Kitaytsev, M.Y. Koledintseva and V.A. Konkin, "Extension of the operating frequency range of the measurer of the power parameters to the millimeter wave band", *Proc. 3<sup>rd</sup> Int. Symposium and Exhibition EMC'97*, 23-27 June 1997. St-Petersburg, Russia, Pt.2, pp.188-191 (in Russian).
122. A.A. Kitaytsev and M.Y. Koledintseva, "Principles of design of power converters based on hexagonal ferrite monocrystal resonators", *Proc. Int. Conf. Currentless Spin Electronics ICCSE'97*, Moscow, Russia, Dec.1997, pp. 439-445 (in Russian).
123. A.A. Kitaytsev and M.Y. Koledintseva, "Application of FMR in isotropic and anisotropic ferrites for the electromagnetic radiation analysis", *Proc. Int. Conf. Currentless Spin Electronics ICCSE'97*. Moscow, Russia, Dec.1997, pp. 430-439 (in Russian).
124. M.Y. Koledintseva and A.A. Kitaytsev, "Application of stable nonlinear resonance effects in monocrystal hexagonal ferrites for electromagnetic compatibility problems", *Proc. Int. Conf. Currentless Spin Electronics ICCSE'97*, Moscow, Russia, Dec. 1997, p. 141-153.
125. A.A. Kitaytsev and M.Y. Koledintseva, "Quasistatic approach to the analysis of magnetization vector behavior of monocrystal hexagonal ferrite with controlled resonance frequency", *Proc. 13th Int. Conf. Microwave Ferrites, ICMF'96*. Busteni, Romania, p. 33-41.
126. A.A. Kitaytsev and M.Y. Koledintseva, "Frequency-selective tolerance control of radiation power level at millimeter waves", *Proc. 4<sup>th</sup> All-Russian Scientific Technical Conference "EMC of Technical Means and Biological Objects" EMC'96*, St.-Petersburg, Russia, 18-20 Sept., 1996 (in Russian).
127. Koledintseva M.Y., "Modulation and demodulation of millimeter-wave signals using hexagonal ferrite resonators", *Proc. 6<sup>th</sup> Int. Conference "Microwave Engineering and Telecommunications Technologies" CriMiCo'96*, Sevastopol, Ukraine, 16-19 Sept., 1996, pp. 215-217 (in Russian).
128. A.A. Kitaytsev and M.Y. Koledintseva, "Interaction between mm-wave oscillations and monocrystal hexagonal ferrites with modulated resonance frequency", *6th Int. Conf. "Mathematical methods in electromagnetic theory" MMET'96*, Sept.10-13. 1996, Lviv, Ukraine, p.199-202.
129. M.Y. Koledintseva and A.A. Kitaytsev, "Millimeter-wave hexagonal ferrite power converter with automodulation for frequency-selective tolerance control and measurement", *Proc. 13th Int. Wroclaw Symp. EMC'95*, Poland. 25-28 June, 1996, pp. 372-374.
130. A.A. Kitaytsev and M.Y. Koledintseva, "On perspective methods of power conversion in millimeter waveband", *Proc. 2 Int. Symp. Exhib. Electromag. Compat. EMC'95*, St.-Petersburg, 26-28 June, 1995, pp.166-167 (in Russian).
131. A.A. Kitaytsev and M.Y. Koledintseva, "Dynamic processes at the interaction between electromagnetic microwave field and hexagonal ferrite resonator with modulated resonance frequency", *Proc. Int. Conf. Currentless Spin Electronics ICCSE'95, Moscow, MPEI (TU)*, Dec. 1995, pp. 469-478 (in Russian).

132. M.Y. Koledintseva, "Modulation of microwave field by means of the acoustically controlled hexagonal ferrite resonator", *Proc. 15th Int. Symp. Electromagnetic Theory EMT'95*, St. Petersburg, Russia, 23-25 May, 1995, pp. 735-740.
133. A.A. Kitaytsev and M.Y. Koledintseva, "Prospective frequency-selective methods of power conversion in mm-waveband using hexagonal ferrites", *Proc. 5th Int. Symp. Recent Advances in Microwave Technology ISRAMT'95*, Kiev, Ukraine, 11-16 Sept. 1995, vol. 1, pp. 71-74.
134. M.Y. Koledintseva and A.A. Kitaytsev, "Millimeter-wave modulator based on the arbitrary oriented hexagonal ferrite resonator", *Proc. of Int. Conf. on Currentless Spin Electronics, ICCSE'95*, 19-23 Dec. 1995, pp. 124-130.
135. A.A. Kitaytsev and M.Y. Koledintseva, "Millimeter wave hexagonal ferrite power transducer with feedback on the intermediate frequency", *Proc. Int. Conf. Currentless Spin Electronics, ICCSE'95*, 19-23 Dec. 1995, pp. 131-133.
136. A.A. Kitaytsev and M.Y. Koledintseva, "Frequency-selective power measurement of millimeter wave oscillations by means of hexagonal ferrite converter with automodulation", *Reports at the Int. Jubilee Conf. "Problems of Radioengineering" (100 Anniversary of Radio Invention). "Magistr", Ed. Moscow Power Eng. Inst. (Techn. Univ)*, Moscow, April, 1995, vol. 2, no. 25, pp. 6-7 (in Russian).

#### 1985-1994

137. M.Y. Koledintseva, "Modulator of millimeter waves using hexagonal ferrite resonator for frequency-selective power converter", *Proc. 4th Crimean Conf. "Microwave Engineering and Satellite Reception"*, Sevastopol, Ukraine, 26-28 Sept., 1994, V.1, pp.171-176 (in Russian).
138. A.A. Kitaytsev and M.Y. Koledintseva, "Frequency-selective hexagonal ferrite power converter with feedback", *Proc. 12th International Conference on Microwave Ferrites, ICMF'94*, Gyulechitsa, Bulgaria, 20-23 Sept. 1994, pp. 240-245.
139. A.A. Kitaytsev and M.Y. Koledintseva, "Frequency-selective device for power level tolerance control of active millimeter-wave devices", *Proc. 3rd Crimean Conf. "Microwave Engineering and Satellite Reception"*, Sevastopol, Ukraine, 20-23 Sept., 1993, V.6, pp.850-854 (in Russian).
140. A.A. Kitaytsev and M.Y. Koledintseva, "On the possibility of measuring microwave oscillation power by means of hexagonal ferrite-semiconductor structure", *Proc. 11 Int. Conf. on Gyromagnetic Electronics and Electrodynamics (Microwave Ferrites) ICMF'92*, Alushta, Crimea, Ukraine, 16-21 Oct. 1992, V.5, pp. 150-152 (in Russian).
141. I.A. Adouevsky, V.F. Balakov, A.A. Kitaytsev, and M.Y. Koledintseva, "On the possibility of one-signal selectivity curve control for gyromagnetic converter", *Proc. 11 Int. Conf. Gyromagnetic Electronics and Electrodynamics (Microwave Ferrites) ICMF'92*, Alushta, Crimea, Ukraine, 16-21 Oct. 1992, V.5, pp. 140-143 (in Russian).
142. I.A. Adouevsky, V.F. Balakov, A.A. Kitaytsev, and M.Y. Koledintseva, "Control of the form of the one-signal selectivity of the gyromagnetic converter at the two-channel processing of the converted signal", *Scientific-Technical Conf. "Oxide magnetic materials. Elements, Devices and Applications"*, St. Petersburg, Russia, 3-4 Nov. 1992, pp. 74-76 (in Russian).
143. A.A. Kitaytsev and M.Y. Koledintseva, "Frequency-selective power converter of the 8-mm waveband based on a hexagonal ferrite resonator", *Proc. USSR Workshop "Devices of Integral and Functional Microwave Electronics"*, Kiev, Ukraine, 2-5 June, 1989. Kiev Polytechnic Institute. (in Russian).
144. A.A. Kitaytsev and M.Y. Koledintseva, "Detection of millimeter waves by the structure hexagonal ferrite resonator – Hall sensor", *Proc. 15th USSR Conf. Microwave Ferrite Engineering*, Leningrad, 20-23 Feb. Scientific Research Inst. "Domen", 1990 (in Russian).
145. A.A. Kitaytsev and M.Y. Koledintseva, "Frequency-selective Nernst-Ethingshausen effect in a semiconductor plate having a heat contact with the hexagonal ferrite resonator at microwaves", *Proc.*

*Jubilee Scientific-Technical Conference of Moscow Power Engineering Institute*, 12 Dec. 1990, Moscow, MPEI(TU), p. 101 (in Russian).

146. A.A. Kitaytsev and M.Y. Koledintseva, "Frequency-selective power conversion of electromagnetic oscillations of millimeter waveband", *Proc. USSR Workshop Gyromagnetic Electronics and Electrodynamics*, Kuibyshev, Russia, 4-6 June 1990, pp.87-88 (in Russian).
147. A.A. Kitaytsev and M.Y. Koledintseva, "The control of the frequency-selectivity curve of gyromagnetic converter", *Proc. 7<sup>th</sup> Int. Conf. Microwave Ferrites, ICMF'88*, Budapest, Hungary, Oct. 1988.
148. L.K. Mikhailovsky, A.A. Kitaytsev, V.A. Konkin, and M.Y. Sizenova, "Increase of signal-to-noise ratio in the microwave processing systems using gyromagnetic converters in cross-multiplication regime", *Proc. 15<sup>th</sup> USSR Conf. on Microwave Ferrite Engineering, Leningrad, Russia. Feb. 1987. Summaries of Reports. Ser.1, "Microwave Electronics. Ferrite Materials and Microwave Devices"*, 1987, issues no. 1 and 2 (in Russian).
149. M.Y. Sizenova and S.I. Polyakov, "Intensity of the minority types of magnetostatic oscillations of the ferrite thin disk in the rectangular waveguide", *Proc. 2<sup>nd</sup> USSR School-Seminar (Workshop) "Spin-Wave Microwave Electronics"*. Ashkhabad, Turkmenia, 14-20 Sept., 1985 (in Russian).
150. M.Y. Sizenova, "Application of self-matched method for study of coupling between ferrite resonators placed in a transmission line or a waveguide", *Proc. All-Union Student Conference on Physics and Mathematical Sciences*, Minsk, Belarus, 17-19 November, 1983 (in Russian).

#### **Technical Reports written in 2000-2009 for MS&T (UMR) EMC Consortium**

1. A. Koul, P. R. Anmola, M.Y. Koledintseva, J.L. Drewniak, and S. Hinaga, "PCB Material Characterization Taking into Account Conductor Surface Roughness", MS&T Consortium, Technical Brief, April 2009.
2. J. Xu and M. Koledintseva, "Development of Methodology for Ferrite Core Characterization", MS&T Consortium, Technical Brief, April 2009.
3. A. Koul, P. R. Anmola, M.Y. Koledintseva, J.L. Drewniak, and S. Hinaga, "PCB Material Characterization", MS&T Consortium, Technical Brief, November 2008.
4. M.Y. Koledintseva, M. Cocchini, J.L. Drewniak, and T.P. Van Doren, "Mutual External Inductance of Microstrip and Stripline Structures", UMR EMC Consortium, Technical Brief 1Q07-1, UMR EMC Consortium, April 2007.
5. M.Y. Koledintseva, S. Chandra, and J.L. Drewniak, "Modeling of Composite Absorbing Gaskets and Behavior of Elementary Radiators Near Composite Layers", UMR EMC Consortium, Technical Brief 1Q07-2, UMR EMC Consortium, April 2007.
6. M.Y. Koledintseva, "Engineering of composite dielectrics for shields at microwave frequencies", UMR EMC Laboratory Quarterly Report, UMR EMC Consortium, Technical Brief 1Q05-1, University of Missouri-Rolla, March, 2005.
7. M.Y. Koledintseva, "Approximating frequency characteristics of composites using an effective medium mixing theory and a genetic algorithm", UMR EMC Consortium, Technical Brief 1Q04-1, University of Missouri-Rolla, March, 2004.
8. J. Zhang, M. Koledintseva, J. Drewniak, and D. Pommerenke, "Reconstruction of the parameters of Debye dielectric media based on stripline and microstrip line models using a genetic algorithm", UMR EMC Consortium, Technical Brief 3Q03-1, University of Missouri-Rolla, November, 2003.

9. J. Zhang, J. Wu, M. Koledintseva, and K. Rozanov, "Development of an FDTD tool for modeling dispersive media", UMR EMC Consortium, Technical Brief 3Q03-2, University of Missouri-Rolla, November, 2003.
10. K. Hu, M. Koledintseva, and J. Drewniak, "FDTD modeling incorporating a two-port network", UMR EMC Consortium, Technical Brief 1Q03-1, University of Missouri-Rolla, April 30, 2003.
11. J. Zhang, M. Koledintseva, and J. Drewniak, "Reconstruction of the parameters of Debye and Lorentzian dispersive media using a genetic algorithm", UMR EMC Consortium, Technical Brief 1Q03-2, University of Missouri-Rolla, March 17, 2003.
12. M. Koledintseva, K. Rozanov, J. Drewniak, A. Orlandi, and G. Antonini, "Extraction of Lorentzian and Debye parameters for FDTD modeling of dielectric and magnetic dispersive media", UMR EMC Consortium, Technical Brief 3Q02-1, University of Missouri-Rolla, September 30, 2002.
13. M. Koledintseva, T. Van Doren, J. Drewniak, and D. Pommerenke, "Mutual inductance associated with fringing magnetic fields in microstrip and stripline geometries", UMR EMC Consortium, Technical Brief 1Q02-1, University of Missouri-Rolla, March 31, 2002.
14. M. Koledintseva, "FDTD modeling of Lorentzian dielectric dispersive media for printed circuit board design", UMR EMC Consortium, Technical Brief 1Q02-2, University of Missouri-Rolla, March 31, 2002.
15. M. Koledintseva, "Connector design investigation for reducing radiated and coupled EMI", UMR EMC Consortium, Technical Brief 3Q01-1, University of Missouri-Rolla, September, 2001.
16. M. Koledintseva, J. Drewniak, "FDTD analysis of Lorentzian dispersive medium", UMR EMC Laboratory Quarterly Report, 1Q01-1, University of Missouri-Rolla, March 31, 2001.
17. M. Koledintseva, "Connector design investigation for reducing radiated and coupled EMI", UMR EMC Laboratory Quarterly Report, 1Q01-2, University of Missouri-Rolla, March 31, 2001.
18. X. Ye, M. Koledintseva, J. Drewniak, "DC power-bus design using FDTD modeling with dispersive media and surface mount technology components", UMR EMC Consortium, Technical Brief 3Q00-1, University of Missouri-Rolla, September, 2000.

#### **Dissertations & Books**

1. M.Y. Koledintseva, "Frequency-Selective Power Conversion of Millimeter Wave Frequency Band on Base of Hexagonal Ferrite Resonators", Ph.D. (Candidate of Technical Sciences) Dissertation, Specialization 05.12.01 "Theoretical Bases of Radio Engineering", Moscow Power Engineering Institute (Technical University). December, 1996, 200 p. (in Russian).
2. M.Y. Koledintseva, "Frequency-Selective Power Converters of Millimeter Wave Frequency Band on Base of Hexagonal Ferrite Resonators", Synopsis of Ph.D. Dissertation, Specialization 05.12.01 "Theoretical Bases of Radio Engineering", Moscow Power Engineering Institute (Technical University). December, 1996, 30 p. (in Russian).
3. M.Y. Koledintseva, "Restoration of Spectrum Envelope of Non-White Wideband Noise using Panoramic Measurer of Spectrum Power Density on Base of Gyromagnetic Converters. USSR Contest Research Work of Young Scientists. Moscow, Russia, May, 1992, 50 p. (in Russian).
4. M.Y. Sizenova, "Detection of Deterministic Components in the Spectrum of Noise Radiation by means of Panoramic Measurer of Spectrum Power Density", USSR Contest of the Best Graduate Student Research in Psysico-Mathematical Sciences, section "Radio Engineering and Telecommunication", Moscow Institute of Telecommunications, Russia, 1984/85, 56 p. (in Russian).
5. M.Y. Sizenova, "Conversion of Additive Sum "Signal + Noise" by Ferrite Cross-Multiplier", M.S. Dissertation (Research Engineer in Radio Physics and Electronics), February, 1984, 130 p. (in Russian).

### **Certificates of Authorship and Patents on Inventions**

1. A.A. Kitaytsev, M.Y. Koledintseva, V.A. Konkin, V.P. Cheparin, and A.A. Shinkov, "Microwave Oven", Author Certificate for Useful Device and Patent of the Russian Federation, positive decision on application No 98120094/20, priority date November 4, 1998. 6H05B6/64 (in Russian).
2. A.A. Kitaytsev and M.Y. Koledintseva, "Microwave Gyromagnetic Cross-Multiplier", Patent of the Russian Federation No 2099854, Bulletin of Inventions No 35, 1997, December 20, 1997, on application 95119473/09 (033854), priority date November 15, 1995 (in Russian).
3. A.A. Kitaytsev and M.Y. Koledintseva, "Device for Frequency-Selective Microwave Power Conversion", Patent of the Russian Federation No 2066865, published in Bulletin of Inventions No 26, 1996, on the application No 93-038323/09 (038211) with priority date July, 27 1993 (in Russian).
4. A.A. Kitaytsev, M.Y. Koledintseva, V.A. Konkin, V.F. Radchenko, N.I. Savchenko, "Method of Spectrum Analysis of Wideband Noise Microwave Signals and the Device for its Realization", Russian Federation Patent No 2088945, Bulletin of Inventions No 24, 1997, September 27, 1997 on the application No 93021125/09 (020368) with priority of April 21, 1993 (in Russian).
5. A.A. Kitaytsev and M.Y. Koledintseva, "Frequency-Selective Power Converter of Microwave Power", Patent of the Russian Federation No 2007791, Bulletin of Inventions No 3, February, 15 1994 on the application N 4944466/09 of June 14, 1991 (in Russian).
6. I.A. Adouevsky, V.F. Balakov, A.A. Kitaytsev, M.Y. Koledintseva, "Method of Frequency Selective Measuring of Peak Power of Microwave Signal", Author Certificate of the USSR on Invention No 1800377, published Bulletin of Inventions October, 9, 1992 on application N 4818210 of April, 24 1990 (in Russian).

### **Defended Dissertations under my Advising and Co-advising**

1. Praveen K.R. Anmula, "Loss Characterization in Printed Circuit Boards (PCBs) for high speed data applications", M.S.E.E. thesis, EMC Laboratory, Electrical and Computer Engineering Department, Missouri University of Science and Technology (MS&T), Rolla, MO, June 2009.
2. Sandeep K. Patil, "Modeling and simulations of dipahsic composites for development of high energy density dielectrics". Ph.D., Department of Materials Science and Engineering, Missouri University of Science and Technology, April 2008.
3. Mei Wang, "Electromagnetic Modeling of Distributed Coaxial cable Crack sensors in Reinforced Concrete Members", M.S. thesis, Civil Engineering Department, Missouri University of Science and Technology, April 2008.
4. Sandeep K. R. Chandra, "Characterization of noise on PDN and electromagnetic shielding", M.S.E.E. thesis, Electrical and Computer Engineering Department, Missouri University of Science and Technology, December 2007.
5. Mikhail M. Sabirov, "Development of algorithms of the design of wire antennas placed in multilayered lossy dielectric media", Doctoral Dissertation (Ph.D. in Engineering Sciences, Specialization "Antennas, Microwave Devices, and Their Technology" (05.12.07), Moscow Power Engineering Institute (Technical University), Moscow, Russia, June, 2006.
6. Chang, Fan-Keung, "Staircasing mesh algorithm for 2D and 3D primitives for FDTD and the generation of complex geometries", M.S.E.E. thesis, Electrical and Computer Engineering Department, University of Missouri-Rolla, Rolla, MO, USA, January, 2006.
7. Poorna Chander Ravva, "Polygon decomposition into minimum number of primitives and electromagnetic shielding using composite materials", M.S.E.E. thesis, Electrical and Computer Engineering Department, University of Missouri-Rolla, Rolla, MO, USA, December, 2005.

8. Kuifeng Hu, "FDTD modeling incorporating two-port networks and plane wave sources in a three-dimensional space", M.S.E.E. thesis, Electrical and Computer Engineering Department, University of Missouri-Rolla, Rolla, MO, USA, November, 2003.
9. Jing Wu, "FDTD modeling of dispersive composite magnetic material", M.S.E.E. thesis, Electrical and Computer Engineering Department, University of Missouri-Rolla, Rolla, MO, USA, November, 2003.
10. Jianmin Zhang, "Reconstruction of the parameters of Debye and Lorentzian dispersive media using a genetic algorithm and features and applications of EZ-FDTD", M.S.E.E. thesis, Electrical and Computer Engineering Department, University of Missouri-Rolla, Rolla, MO, USA, October, 2003.
11. Frank Graebner, "Research of ferrites, modeling of their behavior, and application for high-frequency visualization systems", Doctoral Dissertation, Faculty of Electrical and Information Engineering, Ilmenau Technical University, Germany, January, 2001.
12. Andrey A. Shinkov, "Composite hexagonal ferrite thick film filters for microwave frequency band", M.S. thesis, Radio Engineering Department, Moscow Power Engineering Institute (Technical University), Moscow, Russia, February, 1996.