

LISTA DE LUCRARI

Adrian Crisan, Ph. D., D. Sc.

(Articolele la care sunt mentionate numarul de citari sunt cele ce determină factorul Hirsch = 14)

1. TEA-CO₂ laser deposited YBa₂Cu₃O₇ superconducting thin films. V. Sandu, A. Crisan, D. Grigorescu, L. Miu, I. Chis, G. Aldica, E. Cruceanu, C. Grigoriu, D. Dragulinescu, *J. Mater. Sci. Lett.* 8, 509-510 (1989). IF(2001)=0.489
2. On the Limiting Factors of the Critical Current Density in High-Tc Superconducting Ceramics. L. Miu, A. Crisan, S. Popa, V. Sandu, L. Nistor, *J. Supercond.* 4, 391-394 (1990). IF=0.93
3. Dissipation in Current-Carrying High-Tc Superconducting Ceramics in Applied Magnetic Field. L. Miu, S. Popa, A. Crisan, G. Aldica, J. Jaklovszky, *J. Supercond.* 6, 279-284 (1993). IF=0.93
4. Critical Current Density and Thermally-Activated Flux Motion in High-Temperature Superconducting Ceramics. A. Crisan and L. Miu, *Romanian Reports in Physics*, 45, 503-514 (1993).
5. Synthesis of Tl-Ba-Ca-Cu-O High Temperature Superconductors From Ba-Ca-Cu-O Precursors. I.A. Crisan, *Romanian Journal of Physics*, 38, 155-157 (1993).
6. On a Modified Kim-Anderson Model of the Current-Voltage Characteristics of High Temperature Superconducting Ceramics. A. Crisan, *J. Supercond.* 7, 687-691 (1994). IF=0.93
7. Dimensionality-Related Collective Pinning Behavior of Vortices in High Temperature Superconducting Ceramics. Adrian Crisan, *Romanian Journal of Physics*, 38, 155-157 (1995).
8. The Influence of the Preparation Conditions on the Superconducting Properties of Laser Deposited Epitaxial YBa₂Cu₃O₇ Thin Films. Adrian Crisan, Giovanni Petrocelli and Antonello Tebano, *Romanian Journal of Physics*, 38, 1053-1059 (1995).
9. Current-Voltage Characteristics of High-Temperature Superconducting Ceramics with “Peak-Effect” in the Magnetic Field Dependence of the Transport Critical-Current Density. A. Crisan, *J. Supercond.* 8, 315-320 (1995). IF=0.93
10. **Two-Dimensional Vortex and Phase Fluctuations from Current-Voltage Characteristics of Bi₂Sr₂CaCu₂O_{8+x} Films with Various Oxygen Content.** G. Balestrino, A. Crisan, D. V. Livanov, E. Milani, M. Montuori, A. A. Varlamov, *Phys. Rev. B* 51, 9100-9107 (1995). **IF=3.664, 24 Citari.**
11. A New Approach for the Growth of High-Tc Superconductors. J. Jaklovszky, G. Aldica, C. Rusu and A. Crisan, *Appl. Supercond.* 4, 191-194 (1996). IF(2000)=0.763
12. Temperature-Dependent Collective Pinning Exponent in Bi₂Sr₂Ca₂Cu₃O_{10+x} Tapes and Bulk samples with Preferential Crystallite Orientation. A. Crisan, S. Popa, G. Aldica and J. Jaklovszky, *J. Supercond.* 9, 295-299 (1996). IF=0.93

13. On the Dissipation Process in $\text{Bi}_2\text{Sr}_2\text{Ca}_2\text{Cu}_3\text{O}_{10+x}$ Tapes and Bulk Samples with Preferential Grain Orientation in Zero External Magnetic Field. A. Crisan, L. Miu, S. Popa and G. Aldica, *J. Supercond.* 9, 541-545 (1996). IF=0.93
14. AC Magnetic Susceptibility of $\text{Bi}_2\text{Sr}_2\text{Ca}\text{Cu}_2\text{O}_8$ Single Crystals. S. Mandache, A. Crisan, G. Aldica and S. Popa, *J. Supercond.* 10, 211-214 (1997). IF=0.93
15. Field and Temperature Dependence of the Current-Voltage Characteristics of $\text{Bi}_2\text{Sr}_2\text{Ca}_2\text{Cu}_3\text{O}_{10+x}/\text{Ag}$ Multifilamentary Tapes. A. Crisan, L. Miu, S. Popa and C. Beduz, *J. Supercond.* 10, 215-219 (1997). IF=0.93
16. Current-voltage characteristics of $\text{Bi}_2\text{Sr}_2\text{Ca}_2\text{Cu}_3\text{O}_{10+x}/\text{Ag}$ multifilamentary tapes in zero applied magnetic field. A. Crisan, L. Miu, S. Popa, Y. Yang and C. Beduz, *Supercond. Sci. Technol.* 10, 298-303 (1997). **IF=2.796**
17. Current-voltage characteristics of long $\text{Bi}_2\text{Sr}_2\text{Ca}_2\text{Cu}_3\text{O}_{10}/\text{Ag}$ multifilamentary tapes at different bending strains. M. K. Al-Mosawi, A. Crisan, C. Beduz, D. Phillips and P. Haldar, *Physica C*, 289, 63-69 (1997). **IF=1.11**
18. The influence of the structure on the electrical and magnetic properties of $\text{Bi}_2\text{Sr}_2\text{Ca}\text{Cu}_2\text{O}_{8+x}$ single crystals. G. Aldica, A. Crisan, M. Velter-Stefanescu, S. Mandache and M. C. Bunescu, *J. Mater. Sci.* 32, 1195-1199 (1997). **IF=2.305**
19. Investigations of the zero-field (a,b)-plane conductivity of $\text{YBa}_2\text{Cu}_3\text{O}_{7-\delta}$ near the critical temperature. A. Crisan, S. N. Gordeev, S. Manton, A. P. Rassau, S. Popa, C. Beduz, P. A. J. de Groot, R. Gagnon, L. Taillefer, *Physica C* 309, 1-7 (1998). **IF=1.11**
20. $(\text{BaCuO}_2)_m/((\text{Ca},\text{Sr})\text{CuO}_2)_n$ superlattices grown by pulsed laser deposition: structural and electrical properties. G. Balestrino, A. Crisan, S. Martelucci, P. G. Medaglia, A. Paoletti, G. Petrocelli, in *Superconducting Superlattices II: Native and Artificial*, Eds. I. Bozovic and D. Pavuna, Proceedings of SPIE SPIE 98, San Diego, CA, Volume 3480, 37-43 (1998).
21. **Transport measurements, vortex dynamics and anisotropy in artificially layered $(\text{BaCuO}_2)_2/(\text{CaCuO}_2)_2$ superconducting films.** A. Crisan, G. Balestrino, S. Lavanga, P. G. Medaglia, E. Milani, *Physica C* 313, 70-78 (1999). **IF=1.11, 15 Citari.**
22. The role of structural disorder in artificially layered high-temperature superconductors. G. Balestrino, A. Crisan, G. Balestrino, S. Lavanga, P. G. Medaglia, G. Petrocelli, A. A. Varlamov, *Phys. Rev. B* 60, 10504 - 10507 (1999). **IF=3.664**
23. $[\text{BaCuO}_2]_n/(\text{CaCuO}_2)_m]_N$ artificial superconducting superlattices. A. Crisan, P.G. Medaglia, G. Balestrino, *J. Optoeel. Adv. Mater.* 2 (3), 215-234 (2000) (Review Article). IF=0.563
24. Current-Induced Unbinding of Thermally Created Vortex-Antivortex Pairs in Zero Magnetic Field. A. Crisan, Chapter 6 in 'Flux Pinning in High Temperature Superconductors', Vol. 31 of 'Studies of High Temperature Superconductors', pp. 183-216, Ed. A. Narlikar, Nova Science Publishers, New York (2000), ISBN 1-56072-790-X.
25. Synthesis of the $\text{Ca}_{0.45}\text{Cu}_{0.55}\text{O}$ peritectic phase using a mixture of nitrate powders. P. Badica, G. Aldica, G. Alexe, A. Crisan, *Mater. Lett.* 43, 180-184 (2000). IF(2001)=0.670

26. Superconducting properties from AC susceptibility and harmonic generation in CuBa₂Ca₃Cu₄O_y bulk superconductors. A. Crisan, A. Iyo, Y. Tanaka, M. Hirai, M. Tokumoto, H. Ihara, *Physica C* 353, 227-240 (2001). IF=1.11.
27. Fluctuation magnetoconductivity of BSCCO-2212 films in parallel magnetic field. G. Balestrino, A. Crisan, D.V. Livanov, S.I. Manokhin, E. Milani, *Physica C* 355, 135-139 (2001). IF=1.11.
28. Some Superconducting Properties of the Inter-Domain Border of Melt-Textured YBa₂Cu₃O₇. A. Crisan, S.N. Gordeev, P.A.J. de Groot, C. Beduz, *Physica C* 355, 231-237 (2001). IF=1.11.
29. The Influence of BaZrO₃ on the Magnetic Response of (Bi,Pb):2223 High-Temperature Superconductors. V. Mihalache, G. Aldica, S. Popa, P. Nita, and A. Crisan, *J. Supercond.* 14, 381-386 (2001). IF=0.93.
30. Improvement of the Superconducting Transport Properties of YBa₂Cu₃O_{7-x} by BaZrO₃ Doping. G. Aldica, I. Bradea, J. Jaklovszky, A. Crisan, *J. Supercond.* 14, 405-409 (2001). IF=0.93
31. The Influence of BaZrO₃ on the Magnetic Response of (Bi,Pb):2223 Superconducting System. V. Mihalache, G. Aldica, A. Crisan, *J. Mater. Sci. Lett.* 20, 889-891 (2001). IF92001)=0.489
32. **Sputtered nanodots: A costless method for inducing effective pinning centers in superconducting thin films.** A. Crisan, S. Fujiwara, J.C. Nie, A. Sundaresan, H. Ihara, *Appl. Phys. Lett.* 79, (27) 4547-4549 (2001). IF=3.515, **98 Citari**.
33. **Strong reduction of thermally activated flux jumps rate in superconducting thin films by nanodots induced pinning centers.** A. Crisan, P. Badica, S. Fujiwara, J.C. Nie, A. Sundaresan, Y. Tanaka and H. Ihara, *Appl. Phys. Lett.* 80, 3566-3568 (2002). IF=3.515, **26 Citari**.
34. Decomposition of Ca:Cu=1:1 nitrate powder: thermal analysis and structural studies. P. Badica, G. Aldica, A. Crisan, *J. Mater. Sci.* 37, 585-594 (2002). IF=2.305
35. (Cu,Tl)Ba₂Ca₃Cu₄O_x compositions: I. The influence of synthesis time and temperature on phase formation and evaporation-condensation mechanism. P. Badica, A. Iyo, A. Crisan, Y. Ishiura, A. Sundaresan and H. Ihara, *Supercond. Sci. Technol.* 15, 964-974 (2002). IF=2.796.
36. **(Cu,Tl)Ba₂Ca₃Cu₄O_x compositions: II. Heating rate applied to synthesis of superconducting ceramics.** P. Badica, A. Iyo, A. Crisan and H. Ihara, *Supercond. Sci. Technol.* 15, 975-982 (2002). IF=2.796, **14 Citari**.
37. The influence of Tl and O content from the starting mixture on phase formation in (Cu,Tl)-1234 mixture. P. Badica, A. Crisan and H. Ihara, *Physica C*, 378-381, 683-687 (2002). IF=1.11
38. Magnetization and susceptibility studies on BaZrO₃-doped YBa₂Cu₃O_{7-x} bulk superconductors. I Bradea, S. Popa, G. Aldica, V. Mihalache and A. Crisan, *J. Supercond.* 15, 237-242 (2002). IF=0.93
39. The effect of pinning centers in Zn-Doped CuBa₂Ca₃Cu₄O_x high-temperature superconductors. A. Crisan, S.K. Agarwal, T. Koganezawa, R. Kuroda, K. Tokiwa,

- T. Watanabe, A. Iyo, Y. Tanaka, H. Ihara, *J. Phys. Chem.Sol.* 63, 1073-1076 (2002). **IF=1.594**
40. TlSr₂CaCu₂O_y template for the growth of superconducting Tl(Ba,Sr)₂Ca₂Cu₃O_y thin films on CeO₂ buffered sapphire. A. Sundaresan, A. Crisan, J.C. Nie, M. Hirai, H. Asada, H. Kito, Y. Tanaka, and H. Ihara, *Supercond. Sci. Technol.* 15, 960-963 (2002). **IF=2.796**
41. Growth of TlBa₂Ca₂Cu₃O_y superconducting thin film on CeO₂ buffered sapphire substrate. A. Sundaresan, J.C. Nie, M. Hirai, A. Crisan, S. Fujiwara, H. Asada, P. Badica, Y. Ishiura, H. Kito and H. Ihara, *Physica C*, 378-381, 1283-1286 (2002). **IF=1.11**
42. Cu_mBa_{m+1}Ca_{n-1}Cu_nO_{2m+2n+1} superconducting thin film by self assembly epitaxy method. J.C. Nie, A. Sundaresan, M. Hirai, Y. Ishiura, P. Badica, A. Crisan and H. Ihara, *Physica C*, 378-381, 1278-1282 (2002). **IF=1.11**
43. Third harmonic susceptibility for studying the dissipation in heavy ion irradiated (Cu,C)Ba₂Ca₃Cu₄O_{12-y} high temperature superconductor. A. Crisan, P. Badica, M. Hirai, H. Kito, A. Iyo, and Y. Tanaka, *Supercond. Sci. Technol.* 15, 1240-1243 (2002). **IF=2.796**
44. AC susceptibility and Higher Harmonics Studies of Heavy-Ions Irradiated CuBa₂Ca₃Cu₄O_x Bulk Superconductor with Highest Irreversibility Field above Liquid-nitrogen Temperature. A. Crisan, A. Iyo, H. Kito, Y. Tanaka, M. Hirai, M. Sasase, S. Okayasu, H. Ihara, *Physica C*, 378-381, 112-117 (2002). **IF=1.11**
45. **Superconducting properties of the heavy-ions and neutron irradiated (Cu,C)Ba₂Ca_{n-1}Cu_nO_{2n+4-x} (n=3,4 and 5).** H. Kito, A. Iyo, M. Hirai, A. Crisan, M. Tokumoto, S. Okayasu, M. Sasase and H. Ihara, *Physica C*, 378-381, 329-332 (2002). **IF=1.11 15 Citari.**
46. Heavy-ion irradiation dependence of the superconducting properties of (Cu,C)Ba₂Ca₃Cu₄O_{10.5-δ}. H. Kito, A. Iyo, A. Crisan, M. Hirai, M. Tokumoto, S. Okayasu, M. Sasase, H. Ihara and Y. Tanaka, *Physica C*, 388-389, 711-712 (2003). **IF=1.11**
47. Heavy-ions irradiation dependence of superconducting properties of the Cu-based (Cu,C)Ba₂Ca₃Cu₄O_{11-δ}. H. Kito, A. Iyo, M. Hirai, A. Crisan, M. Tokumoto, S. Okayasu, M. Sasase, M. Satake, H. Ihara, Y. Tanaka, *Physica C* 392-396, Part 1, 181-184 (2003). **IF=1.11**
48. Electron-doped superconductivity induced by oxygen vacancies in as-grown Sr_{0.6}Ca_{0.4}CuO_{2-δ} infinite-layer films. J.C. Nie, P. Badica, M. Hirai, A. Sundaresan, A. Crisan, H. Kito, N. Terada, Y. Kodama, A. Iyo, Y. Tanaka, H. Ihara, *Supercond. Sci. Technol.* 16, L1-L3 (2003). **IF=2.796**
49. Electron-doped superconductivity in Sr_{1-x}Ca_xCuO_{2-δ} infinite-layer thin films. J.C. Nie, P. Badica, M. Hirai, Y. Kodama, A. Crisan, A. Sundaresan, Y. Tanaka, and H. Ihara, *Physica C*, 388-389, 441-442 (2003). **IF=1.11**
50. Preparation of Tl-2212 and -1223 superconducting thin films and their microwave properties. A. Sundaresan, H. Asada, A. Crisan, J.C. Nie, H. Kito, A. Iyo, Y. Tanaka, M. Kusunoki, S. Ohshima, *Physica C*, 388-389, 473-474 (2003). **IF=1.11**
51. Preparation of Tl-2212 and Tl-1223 Superconductor Thin Films and Their Microwave Surface Resistance. A. Sundaresan, H. Asada, A. Crisan, J.C. Nie, H.

- Kito, A. Iyo, Y. Tanaka, M. Kusunoki, and S. Ohshima, *IEEE Trans. Appl. Supercond.*, 13 (2), 2913-2916 (2003). **IF=1.324**
52. **Nanodots-Induced Pinning Centers in Thin Films: Effects on Critical Current Density, Activation Energy and Flux Jump Rate.** A. Crisan, P. Badica, S. Fujiwara, J.C. Nie, A. Sundaresan, A. Iyo, and Y. Tanaka, *IEEE Trans. Appl. Supercond.*, 13 (2), 3726-3729 (2003). **IF=1.324, 14 Citari.**
53. TlBa₂Ca₂Cu₃O_y superconducting films on MgO with different morphologies. P. Badica, A. Sundaresan, A. Crisan, J.C. Nie, M. Hirai, S. Fujiwara, H. Kito and H. Ihara, *Physica C*, 383, 482-490 (2003). **IF=1.11**
54. Magnetic Properties of Bi_{1.7}Pb_{0.4}Sr_{1.5}Ca_{2.5}Cu_{3.6}O_x/(LiF)_(y) superconducting system. V. Mihalache, G. Aldica, S. Popa, and A. Crisan, *Physica C*, 384, 451-457 (2003). **IF=1.11**
55. LiF addition to (Cu,C)Ba₂Ca₃Cu₄O_y superconductor. P. Badica, A. Crisan, M. Hirai, A. Iyo, H. Kito, G. Aldica and Y. Tanaka, *Physica C*, 388-389, 395-396 (2003). **IF=1.11**
56. Tl-based superconducting phases obtained by evaporation-condensation technique. P. Badica, M. Hirai, H. Kito, A. Crisan, A. Iyo and Y. Tanaka, Proceedings of the 4th International Conference 'Science and Engineering of HTS Superconductivity', of the Forum on New Materials, part of CIMTEC2002, Florence, Italy, 2002, in *Advances in Science and Technology, 38, Science and Engineering of HTS Superconductivity IV*, p. 105-112, P. Vincenzini and S. Cerasara, Eds., Techna, Faenza, Italy (2003).
57. Intra- and inter-grain critical current density in (Cu,C):1234 superconductors. A. Crisan, P. Badica, M. Hirai, H. Kito, A. Iyo, and Y. Tanaka, *Physica C*, 388-389, 421-422 (2003). **IF=1.11**
58. **Vortex melting line and anisotropy of high-pressure-synthesized TlBa₂Ca₂Cu₃O_{10-y} high-temperature superconductor from third-harmonic susceptibility studies.** A. Crisan, A. Iyo and Y. Tanaka, *Appl. Phys. Lett.*, 83, 506-508 (2003). **IF=3.515, 20 Citari.**
59. Hall probe imaging of local hysteresis inversion and negative remanent fields near the edge of a YBCO thin film. A. Crisan, A. Pross, R. G. Humphreys and S. Bending, *Supercond. Sci. Technol.*, 16, 695-698 (2003). **IF=2.796**
60. Vortex imaging and local magnetization studies in HTS by scanning Hall probe microscopy. A. Crisan, A. Pross, D. Cole, S. Bending, *Physica C* 408-410, 555-557 (2004). **IF=1.11**
61. Interacting crossing vortex lattices in the presence of quenched disorder. S.J. Bending, A.N. Grigorenko, I.A. Crisan, D. Cole, A.E. Koshelev, J.R. Clem, T. Tamegai, S. Ooi, *Physica C* 412-414, 372-378 (2004). **IF=1.11**
62. Flux Lenses in the Crossing Lattices Regime of Layered Superconductors. D. Cole, A. Crisan, S.J. Bending, T. Tamegai, K. van der Beek, M. Konczykowsky, *Physica C* 404, 99-102 (2004). **IF=1.11**
63. Comparison of magneto-optical imaging with other local magnetic probes. S.J. Bending, A. Brook, J.K. Gregory, I.A. Crisan, A. Pross, A.N. Grigorenko, A. Oral, F. Laviano and E. Mezzetti, in *Magneto-Optical Imaging*, T.H. Johansen and D.V.

Shantsev (eds), NATO Science Series II. Mathematics, Physics and Chemistry, Kluver Academic Publishers, Vol. 142, pp. 11-18 (2004).

64. (Cu,C)Ba₂Ca₃Cu₄O_x-(LiF)_y: addition of LiF as an effective way to synthesize overdoped superconductors. P. Badica, A. Iyo, G. Aldica, H. Kito, A. Crisan, and Y. Tanaka, *Supercond. Sci. Technol.* **17**, 430-437 (2004). **IF= 2.796**
65. Anomalies of AC susceptibility losses in the doped [Bi(Pb)]₂Sr₂Ca₂Cu₃O_x superconductor. V. Mihalache, G. Aldica, P. Badica, and A. Crisan, *Supercond. Sci. Technol.* **17**, 724-730 (2004). **IF=2.796**
66. Enhancement of critical current density in YBa₂Cu₃O_{7-δ} thin films grown using PLD on YSZ(001) surface modified with Ag nanodots. M. Ionescu, A.H. Li, Y. Zhao, H.K. Liu and A. Crisan, *J. Phys. D: Appl. Phys.* **37**, 1824-1828 (2004). **IF=2.521**
67. **Anisotropic vortex channelling in YBa₂Cu₃O_{7-δ} thin films with ordered antidot arrays.** A. Crisan, A. Pross, D. Cole, S.J. Bending, R. Wördenweber, P. Lahl, E.H. Brandt, *Phys. Rev. B* **71**, 144504 (2005). **IF=3.664, 33 Citari.**
68. Flux structures in mesoscopic YBa₂Cu₃O_{7-δ} discs. A. Crisan, S.J. Bending, A. Pross, A. Aziz, A.N. Grigorenko, R.G. Humphreys, *Supercond. Sci. Technol.* **18**, 207 (2005). **IF=2.796**
69. Observation of interacting crossing vortex lattices in Bi₂Sr₂CaCu₂O_{8+δ} thin films. A. Crisan, S. J. Bending, S. Popa, Z. Z. Li, H. Raffy, *Phys. Rev. B* **72**, 214509 (2005). **IF=3.664**
70. **Second-generation quantum-well sensors for room-temperature scanning Hall probe microscopy.** A. Pross, A.I. Crisan, S.J. Bending, V. Mosser, M. Konczykowski, *J. Appl. Phys.* **97**, 096105 (2005). **IF=2.185, 14 Citari.**
71. **Anomalous vortex melting line in the two-component superconductor (Cu, C)Ba₂Ca₃Cu₄O_{10+δ}.** A. Crisan, Y. Tanaka, A. Iyo, L. Cosereanu, K. Tokiwa, T. Watanabe, *Phys. Rev. B* **74**, 184517 (2006). **IF=3.664, 14 Citari**
72. Self-assembling nanotechnology of Au nano-dots for superconducting films and devices. A. Crisan, S. Popa, R. Woerdenweber, E. Hollmann, R. Kutzner, T.W. Button, J.S. Abell. *Proceedings of The 5th International Conference on Advanced Manufacturing Technologies, ICAMaT2007*, 12-14 July 2007, Sibiu, Romania, pp. 427-430, AGIR Publishing House, ISSN 1243-3162 (2007).
73. Coexistence of Superconductivity and Antiferromagnetism in HgBa₂Ca₄Cu₅O_y: Multi-harmonic Susceptibility and Vortex Dynamics Study. A. Crisan, Y Tanaka, A. Iyo, D. D. Shivagan, P. M. Shirage, K. Tokiwa, T. Watanabe, L. Cosereanu, T. W. Button, J. S. Abell, *Phys. Rev. B*, **76**, 212508 (2007). **IF=3.664**
74. **Anomalous AC susceptibility response of (Cu,C)Ba₂Ca₂Cu₃O_y:** Experimental indication of two-component vortex matter in multi-layered cuprate superconductors. A. Crisan, Y. Tanaka, D. D. Shivagan, A. Iyo, L. Cosereanu, K. Tokiwa, T. Watanabe, *Jap. J. Appl. Phys.* **46**, L451-L453 (2007). **IF= 1.057, 19 Citari.**
75. **Interpretation of abnormal ac loss peak based on Vortex-Molecule model for a multicomponent cuprate superconductor.** Y. Tanaka, A. Crisan, D.D. Shivagan, A. Iyo, K. Tokiwa, T. Watanabe. *Jap. J. Appl. Phys.* **46**, 134-145 (2007). **IF= 1.057, 25 Citari.**

76. Vortex molecule and i-soliton studies in multilayer cuprate superconductors. D. D. Shivagan, A. Crisan, P.M. Shirage, A. Sundaresan, Y. Tanaka, A. Iyo, K. Tokiwa, T. Watanabe, N. Terada, *Journal of Physics: Conference Series*, **97**, 012212 (2008).
77. AC-Susceptibility study on vortex-molecule lattice in supermultilayer cuprate $HgBa_2Ca_{n-1}Cu_nO_{2n+2+\delta}$ ($n = 14$). D. D. Shivagan, P. M. Shirage, A. Crisan, Y. Tanaka, A. Iyo, K. Tokiwa, T. Watanabe, N. Terada, *Physica C: Superconductivity and its Applications*, **468**, 1281-1286 (2008). **IF=1.11**
78. Phase diagram of a lattice of vortex molecules in multicomponent superconductors and multilayer cuprate superconductors. Y. Tanaka, D. D. Shivagan, A. Crisan, A. Iyo, P.M. Shirage, K. Tokiwa, T. Watanabe, N. Terada, *Superconductor Science and Technology*, **21**, 085011 (17pp) (2008). **IF=2.796**
79. Manipulation of pancake vortices by rotating a Josephson vortex lattice. A. Crisan, S. J. Bending, T. Tamegai, *Supercond. Sci. Technol.*, **21**, 015017 (2008). **IF=2.796**
80. Magnetically coupled pancake vortex molecules in $HgBa_2Ca_{n-1}Cu_nO_y$ ($n \geq 6$). A. Crisan, A. Iyo, Y. Tanaka, H. Matsuhata, D.D. Shivagan, P.M. Shirage, K. Tokiwa, T. Watanabe, T.W. Button, J.S. Abell, *Phys. Rev. B*, **77**, 144518 (2008). **IF=3.664**
81. Pancake-vortex molecules in $HgBa_2Ca_{n-1}Cu_nO_y$ ($n \geq 6$) superconductors. A. Crisan, A. Iyo, Y. Tanaka, H. Matsuhata, D.D. Shivagan, P.M. Shirage, K. Tokiwa, T. Watanabe, T.W. Button, J.S. Abell, *Physica C: Superconductivity and its Applications*, **468**, 714-717 (2008). **IF=1.11**
82. Vortex Dynamics in Hg-based Multi- and Super-Multi-Layered Cuprates. A. Crisan, Y. Tanaka, A. Iyo, D.D. Shivagan , P.M. Shirage, T.W. Button, J.S. Abell, K. Tokiwa, T. Watanabe, *Journal of Physics: Conference Series*, **97**, 012013 (2008).
83. Critical current densities and irreversibility fields of a $HgBa_2Ca_{n-1}Cu_nO_{2n+2+\delta}$ sample containing $n = 6-15$ phases. P.M. Shirage, A. Iyo, D.D. Shivagan, A. Crisan, Y. Tanaka, Y. Kodama, H. Kito, *Physica C: Superconductivity and its Applications*, **468**, 1287-1290 (2008). **IF=1.11**
84. Superconductivity at 108 K in the simplest non-toxic double-layer cuprate of $Ba_2Ca_3Cu_4O_8(O, F)_2$. P.M. Shirage, D.D. Shivagan, A. Crisan, Y. Tanaka, Y. Kodama, H. Kito and A. Iyo, *Journal of Physics: Conference Series*, **97**, 012163 (2008).
85. Critical current densities and irreversibility fields of new high- T_c $Ba_2Ca_3Cu_4O_8(O, F)_2$ superconductor. P.M. Shirage, D.D. Shivagan, A. Crisan, Y. Tanaka, Y. Kodama, H. Kito and A. Iyo, *Physica C: Superconductivity and its Applications*, **468**, 773-776 (2008). **IF=1.11**
86. Vortex melting line and dimensional crossover in $Ba_2Ca_{n-1}Cu_nO_{2n}(O_{1-y}, Fy)_2$ cuprate superconductors. D. D. Shivagan, P. M. Shirage, A. Crisan, Y. Tanaka, A. Iyo, Y. Kodama, K. Tokiwa, T. Watanabe, N. Terada, N. Hamada, *Physica C: Superconductivity and its Applications*, **468**, 749-752 (2008). **IF=1.11**
87. Vortex melting line and anisotropy of a $Ba_2Ca_3Cu_4O_8(O_{1-y}Fy)_2$ multilayered superconductor. D. D. Shivagan, P. M. Shirage, A. Crisan, Y. Tanaka, A. Iyo, Y.

Kodama, K. Tokiwa, T. Watanabe, N. Terada, and N. Hamada, *Superconductor Science and Technology*, **21**, 095002 (7pp) (2008). **IF=2.796**

88. Thermally-induced self-assembling nanotechnology of gold nano-dots on CeO₂-buffered sapphire for superconducting films. A. Crisan, R. Woerdenweber, E. Hollmann, R. Kutzner, T.W. Button, J.S. Abell, *J. Optoelect. Adv. Mater.*, **10**, 1370-1373 (2008). IF=0.563
89. Artificial pinning centres in YBa₂Cu₃O_{7-δ} Thin Films by Gd₂Ba₄CuWO_Y nanophase inclusions, M. M. Awang Kechik, P. Mikheenko, A. Sarkar, V. S. Dang, N. Hari Babu, D. A. Cardwell, J. S. Abell and A. Crisan, *Superconductor Science and Technology*, **22**, 034020 (5pp) (2009). **IF=2.796**
90. Critical Current Density and Pinning Potential in YBa₂Cu₃O_{7-δ} Thick Films Ablated from a BaZrO₃ – Doped Nanocrystalline Target, A. Crisan, M.M. Awang Kechik, P. Mikheenko, V.S. Dang, J.S. Abell, P. Paturi, H. Huhtinen, *Superconductor Science and Technology*, **22**, 045014 (5pp) (2009). **IF=2.796**
91. All-self-assembled MgO nanorods and nanowires grown on Au-decorated MgO substrates by pulsed laser deposition, A. Crisan, J.L. Tanner, P. Mikheenko, J.S. Abell, *Optoelectronics and Advanced Materials – Rapid Communications*, **3**, 231-235 (2009). IF=0.449
92. Vortex molecule, fractional flux quanta, and interband phase difference soliton in multi-band superconductivity and multi-component superconductivity, Y. Tanaka, D.D. Shivagan, A. Crisan, A. Iyo, P.M. Shirage, K. Tokiwa, T. Watanabe, N. Terada, *Journal of Physics: Conference Series*, **150**, 052267 (2009).
93. Ambiguity in the statistics of single component winding vortex in a two-band superconductor, Y. Tanaka and A. Crisan, *Physica B: Condensed Matter*, **404**, 1033-1039 (2009). **IF=1.276**
94. **c-Axis correlated extended defects and critical current in YBa₂Cu₃O_x films grown on Au and Ag-nano dot decorated substrates**, P. Mikheenko, A. Sarkar, V.-S. Dang, J. L. Tanner, J. S. Abell, and A. Crisan, *Physica C: Superconductivity and its Applications*, **469**, 798-804 (2009). **IF=1.11, 16 Citari.**
95. Pinning centers induced in YBCO films by nano-dots in substrate decoration and quasi-superlattice approaches, P. Mikheenko, A. Sarkar, V.-S. Dang, J. L. Tanner, M.M. Awang Kechik, J. S. Abell, and A. Crisan, *IEEE Transactions on Applied Superconductivity*, **19**(3), 3491-3494 (2009). **IF=1.122**
96. Improvement of pinning force and critical current density in thick YBa₂Cu₃O_{7-δ} films grown on SrTiO₃ substrates decorated with LaNiO₃ nanodots, A. Crisan, A. Sarkar, P. Mikheenko, V.S. Dang, M.M. Awang Kechik, J.S. Abell, *Journal of Superconductivity and Novel Magnetism* **22**, 631-636 (2009). IF=0.93
97. Enhancing critical current in YBCO thick films: substrate decoration and quasi-superlattice approach, A. Sarkar, P. Mikheenko, V.S. Dang, J. S. Abell, and A. Crisan, *Physica C: Superconductivity and its Applications*, **469** (15-20), 1550-1553 (2009). **IF=1.11**
98. Phase diagram of a lattice of pancake vortex molecules, Y. Tanaka, A. Crisan, D.D. Shivagan, A. Iyo, P.M. Shirage, K. Tokiwa, T. Watanabe, N. Terada, *Physica C: Superconductivity and its Applications*, **469** (15-20), 1129-1131 (2009). **IF=1.11**

99. YBa₂Cu₃O_{7-x} thin films by citrate-based non-fluorine precursor, W. Cui, P. Mikheenko, L.M. Yu, T.W. Button, J.S. Abell and A. Crisan, *Journal of Superconductivity and Novel Magnetism* **22**, 811-815 (2009). IF=0.93
100. Pinning potential in thick PrBa₂Cu₃O_x/YBa₂Cu₃O_{7-δ} quasi-multilayers, A. Crisan, V.S. Dang, P. Mikheenko, Y.Y. Tse, A. Sarkar, J. Bowen, J.S. Abell, *Physica C: Superconductivity and its Applications*, **470**, 55-60 (2010). **IF=1.11**
101. Critical current density and pinning in Ag/YBa₂Cu₃O_x and PrBa₂Cu₃O_y/YBa₂Cu₃O_x multilayers, V. S. Dang, P. Mikheenko, A. Sarkar, M. M. Awang Kechik, J S Abell1 and A Crisan, *J. Phys.: Conf. Ser.* **234**, 012010 (2010).
102. Self-assembled artificial pinning centres in thick YBCO superconducting films, P Mikheenko, J S Abell, A Sarkar, V S Dang, M M Awang Kechik, J L Tanner, P Paturi, H Huhtinen, N Hari Babu, D A Cardwell and A Crisan, *J. Phys.: Conf. Ser.* **234**, 022022 (2010).
103. Artificial pinning in thick YBCO films: Pinning potential and c-axis correlation, A. Crisan, P. Mikheenko, A. Sarkar, V. S. Dang, M. M. Awang Kechik, J. S. Abell, P. Paturi, H. Huhtinen, *Physica C: Superconductivity and its Applications*, **470**, 840-843 (2010). **IF=1.11**
104. Increased critical current density and pinning in thick Ag/YBa₂Cu₃O_{7-x} multilayers, V. S. Dang, P. Mikheenko, A. Sarkar, M. M. Awang Kechik, J S Abell1 and A Crisan, *Physica C: Superconductivity and its Applications*, **470**, 1238-1241 (2010). **IF=1.11**
105. Topological structure of the interband phase difference soliton in two-band superconductivity, Y. Tanaka, A. Iyo, K. Tokiwa, T. Watanabe, A. Crisan, A. Sundaresan, N. Terada, *Physica C: Superconductivity and its Applications*, **470**, 1010-1012 (2010). **IF=1.11**
106. Nanodots induced columnar growth of YBa₂Cu₃O_x films, P. Mikheenko, J.L. Tanner, J. Bowen, A. Sarkar, V.-S. Dang, J.S. Abell, A. Crisan, *Physica C: Superconductivity and its Applications*, **470**, (Suppl. 1), S234-S236 (2010). **IF=1.11**
107. Topology of two-band superconductors, Y. Tanaka, A. Iyo, K. Tokiwa, T. Watanabe, A. Crisan, A. Sundaresan, N. Terada, *Physica C: Superconductivity and its Applications*, **470**, (Suppl. 1), S966-S967 (2010). **IF=1.11**
108. Improved critical current densities in thick YBa₂Cu₃O_{7-x} multilayer films interspaced with non-superconducting YBa₂Cu₃O_x nanodots, A. Sarkar, V.S. Dang, P. Mikheenko, M.M Awang Kechik, J.S. Abell, A. Crisan, *Thin Solid Films*, **519**, 876-879 (2010). **IF=1.867**
109. **Integrated nanotechnology of pinning centres in YBa₂Cu₃O_x films. P. Mikheenko, V.-S. Dang, Y.Y. Tse, M. M. Awang Kechik, P. Paturi, H. Huhtinen, Y. Wang, J. S. Abell and A. Crisan, *Superconductor Science and Technology*, **23**, 125007 (2010). IF=2.796, 14 citari**
110. Combination of Ag Substrate Decoration with Introduction of BaZrO₃ Nano-Inclusions for Enhancing Critical Current Density of YBa₂Cu₃O₇ Films, V. S. Dang, A. Sarkar, P. Mikheenko, M. M. Awang Kechik, J. S. Abell, P. Paturi, H.

Huhtinen, A. Crisan, *Journal of Superconductivity and Novel Magnetism*, **24** (5), 505-509 (2011). IF=0.93

111. Nano Techniques for Enhancing Critical Current in Superconducting YBCO Films, P. Mikheenko, V.S. Dang, M.M. Awang Kechik , Y. Wang, A. Sarkar, J.L. Tanner, J. S. Abell, A. Crisan, *Journal of Superconductivity and Novel Magnetism* **24** (5), 1059-1064 (2011). IF=0.93
112. Improved Critical Current Densities in $\text{YBa}_2\text{Cu}_3\text{O}_{7-\delta}$ Multilayer Films Interspaced with Palladium Nanodots, A. Sarkar, P. Mikheenko, V.S. Dang, M.M. Awang Kechik, J. S. Abell, A. Crisan, *Journal of Superconductivity and Novel Magnetism* **24** (5), 173-177 (2011). IF=0.93
113. Exotic Vortex Matter: Pancake Vortex Molecules and Fractional-Flux Molecules in Some Exotic and/or Two-Component Superconductors, A. Crisan, Y. Tanaka, A. Iyo, *Journal of Superconductivity and Novel Magnetism* **24** (5), 1-6 (2011). IF=0.93
114. Synergetic pinning centres in $\text{YBa}_2\text{Cu}_3\text{O}_x$ films through a combination of Ag nano-dot substrate decoration, Ag/YBCO quasi-multilayers, and the use of BaZrO₃-doped target, P. Mikheenko, V.-S. Dang, M. M. Awang Kechik, A. Sarkar, P. Paturi, H. Huhtinen, J. S. Abell and A. Crisan, *IEEE Trans. Appl. Supercond.* **21** (3) 3184-3188 (2011). **IF=1.324**
115. ‘Beautiful’ unconventional synthesis and processing technologies of superconductors and some other materials. P.Badica, A. Crisan, G. Aldica, K. Endo, H. Borodianska, K. Togano, S. Awaji, K. Watanabe, Y. Sakka, O. Vasylkiv, *Science and Technology of Advanced Materials*, **12**, 013001 (2011). **IF=2.613, 17 Citari.**
116. Intermittent trapping of a liquid-like vortex state visualized by scanning Hall probe microscopy, A. Crisan, S.J. Bending, Z.Z. Li, H. Raffy, *Superconductor Science and Technology*, **24**, 115001 (2011). **IF=2.796**
117. Domains in multiband superconductors, Y. Tanaka, T. Yanagisawa, A. Crisan, P.M. Shirage, A. Iyo, K. Tokiwa, T. Nishio, A. Sundaresan, N. Terada, *Physica C: Superconductivity and its Applications*, **471**, 747-750 (2011). **IF=1.11**
118. Inhibition of the detrimental double vortex-kink formation in thick $\text{YBa}_2\text{Cu}_3\text{O}_7$ films with BaZrO₃ nanorods, D. Miu, I. Ivan, A. Crisan, P. Mele, G. Jakob, L. Miu, *Superconductor Science and Technology*, **26**, 045008 (2013). **IF=2.796**
119. High Vortex Depinning Temperatures in YBCO Films with BZO Nanorods, L. Miu, I. Ivan, D. Miu, P. Mele, K. Matsumoto, P. Mikheenko, V.S. Dang, A. Crisan, *Journal of Superconductivity and Novel Magnetism* **26**, 1167-1173 (2013). IF=0.93
120. Evolution of vortex dynamics in $\text{YBa}_2\text{Cu}_3\text{O}_7$ films with nanorods by adding nanoparticles, L. Miu, P. Mele, A. Crisan, A. Ionescu, D. Miu, *Physica C: Superconductivity and its Applications*, **500**, 40-43 (2014). **IF=1.11**
121. Investigation of the bulk pinning force in YBCO superconducting films with nano-engineered pinning centres, A. Crisan, V.S.Dang, G. Yearwood, P. Mikheenko, H. Huhtinen, P. Paturi, *Physica C: Superconductivity and its Applications*, **503**, 89-93 (2014). **IF=1.11**

122. High—Field Pinning Potential in YBCO Films with Nanoengineered Pinning Centres, J.C. Collazos, S.B. Guner, M.E. Celik, A. Oprea, A. Gencer, A. Crisan, *Journal of Superconductivity and Novel Magnetism* **28** (2), 355-360 (2015). IF=0.93
123. Nanoengineered pinning centres in YBCO superconducting films, A. Crisan, V.S. Dang, P. Mikheenko, *Physica C: Superconductivity and its Applications Physica C: Superconductivity and its Applications*, **533**, 118-132 (2017) IF=0.93
124. Synergetic pinning centres in BaZrO₃-doped YBa₂Cu₃O₇ films induced by SrTiO₃ nano-layers. A. Crisan, V.S. Dang, P. Mikheenko, A.M. Ionescu, I.Ivan, L. Miú, *Superconductor Science and Technology*, **30**, 045012 (2017). **IF=2.717**
125. Vortex-glass state in the isovalent optimally doped pnictide superconductor BaFe₂(As_{0.68}P_{0.32})₂. S. Salem-Sugui Jr., J. Mosqueira, A.D. Alvarenga, D. Sonora, A. Crisan, A.M. Ionescu, S. Sundar, D. Hui, S.-L. Li, H.-Q. Luo, *Superconductor Science and Technology*, **30**, 055003 (2017). **IF=2.717**