

LIST OF PUBLICATIONS

1. PAPERS PUBLISHED IN PEER-REVIEW JOURNALS

16. **C. Stanciu**, S. Hau, C. Tihon, "Effect of vacuum sintering on the microstructure and spectroscopic properties of Eu doped strontium titanate ceramics," *Ceram. Int.* **xx(x)**, xxxx-xxx (2024), <https://doi.org/10.1016/j.ceramint.2024.01.303>. (*in press*)
15. **C. Stanciu**, S. Hau, G. Stanciu, R. Trusca, B. S. Vasile, C. Tihon, "Structural, microstructural characterization and luminescence spectroscopy of europium-doped strontium titanate prepared by the sol-gel method", *Ceram. Int.* **49(23, Part A)**, 37293-37306 (2023).
14. R. E. Pătru, **C. A. Stanciu**, E. M. Soare, V. A. Surdu, R. D. Trușcă, A. I. Nicoară, B. S. Vasile, G. Boni, L. Amarande, N. Horchidan, L. P. Curecheriu, L. Mitoșeriu, L. Pintilie, I. Pintilie, A. C. Ianculescu, "Grain size-driven effect on the functional properties in Ba_{0.6}Sr_{0.4}TiO₃ ceramics consolidated by spark plasma sintering," *J. Eur. Ceram. Soc.* **43(8)**, 3250-3265 (2023).
13. K. Belgacem, **C. Stanciu**, S. Perju, M. Cernea, "Role of the Dopants in Improving the Piezoelectric Properties of Bi_{0.5}Na_{0.5}TiO₃", *J. Electron. Mater.* **52**, 4455-4474 (2023).
12. M. Botea, I. Pintilie, V.A. Surdu, **C.A. Stanciu**, R.D. Trusca, B.S. Vasile, R. Patru, M. Udrea, A.C. Ianculescu, L. Pintilie, "Structural, functional properties and enhanced thermal stability of bulk graded (Ba,Sr)TiO₃ structures obtained by spark plasma sintering," *J. Mater. Res. Technol.-JMRTT* **12**, 2085-2103 (2021).
11. R. Patru, P. Ganea, **C. Stanciu**, A. Surdu, R. Trusca, A. Ianculescu, I. Pintilie, L. Pintilie, "(Ba,Sr)TiO₃ solid solutions sintered from sol-gel derived powders: An insight into the composition and temperature dependent dielectric behavior," *Ceram. Int.* **46(4)**, 4180-4190 (2020).
10. **C. Stanciu**, I. Pintilie, A. Surdu, R. Trușcă, B. Vasile, M. Eftimie, A., Ianculescu, "Influence of sintering strategy on the characteristics of sol-gel Ba_{1-x}Ce_xTi_{1-x/4}O₃ ceramics," *Nanomaterials* **9(12)**, 1675 (2019).
9. **C. A. Stanciu** (Vasilescu), M. Cernea, E. C. Secu, G. Aldica, P. Ganea, R. Trusca, "Lanthanum influence on the structure, dielectric properties and luminescence of BaTiO₃ ceramics processed by spark plasma sintering technique," *J. Alloys & Comp.* **706**, 538-545 (2017).
8. A. C. Ianculescu, **C. A. Vasilescu**, L. Trupina, B. S. Vasile, R. Trusca, M. Cernea, L. Pintilie, and A. Nicoara, "Characteristics of Ce³⁺-doped barium titanate nanoshell tubes prepared by template-mediated colloidal chemistry," *J. Europ. Ceram. Soc.* **36(7)**, 1633-1642 (2016).
7. A. Ianculescu, I. Pintilie, **C. Stanciu**, M. Botea, A. Iuga, A. Melinescu, N. Drăgan, L. Pintilie, "Intrinsic pyroelectric properties of thick, coarse grained Ba_{1-x}Sr_xTiO₃ ceramics," *Ceram. Int.* **42(8)**, 10338-10348 (2016).
6. M. Cernea, **C. Stanciu**, M. Secu, G. Aldica, A. Surdu, P. Ganea, "Dielectric and photoluminescence properties of Nd and Ga codoped-BaTiO₃, prepared by sol-gel method," *J. Mater. Sci.-Mater. Electron.* **27(11)**, 11371-11378 (2016).
5. **C. A. Vasilescu**, L. Trupina, B. S. Vasile, R. Trusca, M. Cernea, A. C. Ianculescu, "Characteristics of 5 mol% Ce³⁺-doped barium titanate nanowires prepared by a combined route involving sol-gel chemistry and polycarbonate membrane-templated, process," *J Nanopart Res.* **17(11)**, art. 434 (2015).
4. A. C. Ianculescu, **C. A. Vasilescu**, M. Crisan, M. Rsileanu, B.S. Vasile, M. Cslugaru, D. Crisan, N. Dragan, L. Curecheriu, and L. Mitoșeriu, "Formation mechanism and characteristics of lanthanum-

doped BaTiO₃ powders and ceramics prepared by the sol-gel process," *Materials Characterization* **106**, 195–207 (Aug. 2015).

3. N. Horchidan, A. C. Ianculescu, **C. A. Vasilescu**, M. Deluca, V. Musteata, H. Ursic, R. Frunza, B. Malic, and L. Mitoseriu, L, "Multiscale study of ferroelectric-relaxor crossover in BaSn_xTi_{1-x}O₃ ceramics," *J. Europ. Ceram. Soc.* **34** (15), 3661-3674 (2014).
2. **C. A. Vasilescu**, M. Crisan, A. C. Ianculescu, M. Raileanu, M. Gartner, M. Anastasescu, N. Dragan, D. Crisan, R. Gavrilă, and R. Trusca, "Structure, morphology and optical properties of multilayered sol-gel BaTi_{0.85}Zr_{0.15}O₃ thin films," *Applied Surface Science* **265**, 510–518 (2013).
1. M. Deluca, **C. A. Vasilescu**, A. C. Ianculescu, D. C. Berger, C. E. Ciomaga, L. P. Curechiu, L. Stoleriu, A. Gajovic, L. Mitoseriu, and C. Galassi, "Investigation of the composition-dependent properties of BaTi_{1-x}Zr_xO₃ ceramics prepared by the modified Pechini method," *Journal of the European Ceramic Society* **32** (13), 3551-3566 (2012).

2. OTHER PAPERS & BOOKS CHAPTERS

4. A. C. Ianculescu, **C. A. Stanciu**, *Magnetic, Ferroelectric, and Multiferroic Metal Oxides*, **Chapter 8**, Nanosized BaTiO₃-based systems, pp. 153-201, in "Magnetic, Ferroelectric, and Multiferroic Metal Oxides", Ed. Biljana Stojanović, Ghenadii Korotcenkov, Elsevier, 2017, ISBN: 978-0-12-811180-2.
3. A. C. Ianculescu, D. C. Berger, **C. A. Vasilescu**, M. Olariu, B. S. Vasile, L. P. Curecheriu, A. Gajovic, R. Trusca, Chapter 1. Incorporation mechanism and functional properties of Ce-doped BaTiO₃ ceramics derived from nanopowders prepared by the modified-Pechini method, pp. 13-43, in "Nanoscale Ferroelectrics and Multiferroics: Key Processing and Characterization Issues, and Nanoscale Effects", vol. 1, Ed. Miguel Algueró, Marty Gregg, L. Mitoseriu, John Wiley & Sons, Ltd, 2016, Print ISBN: 978-1-118-93575-0; Online ISBN: 978-1-118-935743.
2. M. Cernea, A. C. Ianculescu, B. S. Vasile, C. A. Vasilescu, "Nanotubes of Ba_{0.95}Ce_{0.05}Ti_{0.9875}O₃ prepared by sol-gel chemistry," *University Politehnica of Bucharest Scientific Bulletin Series B-Chemistry and Materials Science*, **78**(1), 51-58 (2016).
1. C. A. **Vasilescu**, L. P. Curecheriu, L. Mitoseriu, A. C. Ianculescu, "Phase formation, microstructure and functional properties of some BaTi_{1-x}Zr_xO₃ ceramics," *University Politehnica of Bucharest Scientific Bulletin Series B-Chemistry and Materials Science*, **77**(1), 95-106 (2015).

3. PROCEEDINGS OF INTERNATIONAL CONFERENCES

1. **C.-A. Stanciu**, T. Dascalu, G. Stanciu, N. Pavel, "Transparent Nd doped YAG ceramics," *Journal of Physics: Conference Series* **741**(1), art. 012074 (2016); 3rd International School and Conference on Optoelectronics, Photonics, Engineering and Nanostructures (Saint Petersburg OPEN 2016), 28-30 March 2016, St. Petersburg, Russia; doi:10.1088/1742-6596/741/1/012074

4. PRESENTATIONS AT INTERNATIONAL AND NATIONAL CONFERENCES

28. **C. Stanciu**, C. Tihon, G. Stanciu, R. Trusca, "Structural, morphological, and optical properties of rare earth (erbium, ytterbium)-doped SrTiO₃ ceramics," XVIIIth Conference of the European Ceramic Society, 2-6 July 2023, Lyon, France, paper S8-P146 (poster presentation).
27. C. Tihon, **C. Stanciu**, G. Stanciu, S. Hau, M. Cernea, "Synthesis, characterization and spectroscopic properties of Er, Yb - doped SrTiO₃ ceramics sintered from sol-gel derived powders," E-MRS 2023 Spring meeting, 29 May - 2 June 2023, Strasbourg, France; session FP, paper 29_909 (poster presentation).
26. **C. Stanciu**, C. Tihon, G. Stanciu, S. Hau, M. Cernea, R. Trusca, "Investigation of rare earth (Er, Yb) effects on structural, morphological, and optical properties of SrTiO₃ doped ceramics

- elaborated from sol-gel synthesized nanopowders," E-MRS 2023 Spring meeting, 29 May - 2 June 2023, Strasbourg, France; session FP, paper 30-922 (poster presentation).
25. **C. Stanciu**, C. Tihon, G. Stanciu, S. Hau, M. Cernea, "Investigation of microstructure and spectroscopic properties of europium doped SrTiO₃ ceramics prepared via sol-gel method," E-MRS 2022 Fall Meeting, 19-22 September 2022, Warsaw, Poland; presentation K.P.9.
 24. C. Tihon, **C. Stanciu**, G. Stanciu, M. Cernea, "Spectroscopic Properties of Eu-doped SrTiO₃ Ceramics Sintered from Sol-Gel Derived Powders," E-MRS 2022 Fall Meeting, 19-22 September 2022, Warsaw, Poland; presentation K.P.8.
 23. **C. Stanciu**, C. Tihon, G. Stanciu, S. Hau, M. Cernea, "Characterizations of vacuum sintered europium doped SrTiO₃ ceramics using sol-gel synthesized nanopowders," 14th International Conference on Physics of Advanced Materials - ICPAM-14 and PAMS-5, September 8-15, 2022, Dubrovnik, Croatia.
 22. C. Tihon, **C. Stanciu**, G. Stanciu, M. Cernea, "Synthesis, characterization and spectroscopic properties of Eu-doped SrTiO₃ ceramics sintered from sol-gel derived powders," 14th International Conference on Physics of Advanced Materials - ICPAM-14 and PAMS-5, September 8-15, 2022, Dubrovnik, Croatia.
 21. A. Ianculescu, **C. A. Stanciu**, L. Trupină, B. S. Vasile, R. Trușcă, M. Cernea, A. Nicoară, "One-Dimensional Ce³⁺-doped BaTiO₃ nanostructures: synthesis and properties," EMN Meeting on Nanowires, 26-30 November, 2019, Port-Louis, Mauritius. (invited presentation)
 20. A. Ianculescu, I. Pintilie, **C. A. Stanciu**, A. Surdu, L. Pintilie, C. Ciomagă, L. Mitoșeriu, R. Trușcă, B. Vasile, M. Crișan, "Influence of microstructure on the electrical behaviour of some A and B-site substituted BaTiO₃ ceramics," EUROMAT, 1-5 September, 2019, Stockholm, Sweden. (oral presentation)
 19. A. C. Ianculescu, I. Pintilie, **C. A. Stanciu**, A. Surdu, L. Pintilie, C. Ciomagă, L. Curecheriu, L. Mitoșeriu, R. Trușcă, "Grain size-dependence of functional properties in some BaTiO₃-Based Ceramics," XVI ECerS Conference, 16-20 June, 2019, Torino, Italy. (oral presentation)
 18. A. C. Ianculescu, **C. A. Stanciu**, R. Trușcă, B. S. Vasile, A. Nicoară, L. Trupină, M. Cernea, "Preparation and characterization of 1D Ce³⁺-doped BaTiO₃ nanostructures," Electroceramics XVI, 9-12 July, 2018, Hasselt, Belgium. (oral presentation)
 17. **C. A. Stanciu**, R. Trușcă, I. Pintilie, M. Cernea, B. S. Vasile, A. C. Ianculescu, "Cerium-modified barium titanate ceramics prepared by the sol-gel method," 7th International Congress on Ceramics (ICC7 2018), 17-21 June, 2018, Foz de Iguaçú, Brasil. (oral presentation)
 16. A. C. Ianculescu, **C. A. Stanciu**, L. Trupină, B. S. Vasile, R. Trușcă, M. Cernea, A. Nicoară, "Ce³⁺-doped BaTiO₃ 1D-nanostructures prepared by colloidal chemistry," 7th International Congress on Ceramics (ICC7 2018), 17-21 June, 2018, Foz de Iguaçú, Brasil. (oral presentation)
 15. A. C. Ianculescu, **C. A. Stanciu**, B. S. Vasile, L. Trupină, R. Trușcă, M. Cernea, L. Pintilie, A. Nicoară, "Preparation and Characterization of Cerium-Doped BaTiO₃ Nanotubes Structures," 15th Conference & Exhibition of the European Ceramic Society, ECerS XV, 9-13 July, 2017, Budapest, Hungary. (oral presentation)
 14. A. C. Ianculescu, **C. A. Stanciu**, B. S. Vasile, L. Trupină, R. Trușcă, M. Cernea, L. Pintilie, A. Nicoară, "Prepararea și caracteristicile unor tuburi nanostructurate de (Ba,Ce)TiO₃," al XIII-lea Simpozion Național "Pulberi Ceramice", 11-14 July, 2017, București, România. (key note lecture)
 13. G. Stanciu, C. A. Stanciu, C. A. Brandus, F. Voicu, T. Dascalu, "Laser Gain Transparent Ceramics Media," The 5th Laser Ignition Conference, 20-23 June, 2017, Bucharest, Romania, presentation LWA5.5. (poster presentation)
 12. G. Stanciu, **C. A. Stanciu**, A. Stefan, T. Dascalu, S. Georgescu, "Structural and optical properties of Neodymium-doped Yttrium Aluminum Garnet (Nd:YAG) transparent ceramics," The 16th International Balkan Workshop on Applied Physics, 7-9 July, 2016, Constanta, Romania; Book of Abstracts, pp. 39-40. (poster presentation)
 11. A. M. Voiculescu, C. Matei, **C. Stanciu**, S. Georgescu, "Synthesis and characterization of SrY₂O₄ samples doped with rare earth ions," The 16th International Balkan Workshop on Applied Physics, 7-9 July, 2016, Constanta, Romania; Book of Abstracts, pp. 29-30. (poster presentation)
 10. **C.-A. Stanciu**, T. Dascalu, G. Stanciu, N. Pavel, "Transparent Nd:YAG Ceramic Media," 3rd International School and Conference "Saint Petersburg OPEN 2016", 28-30 March, 2016 Saint Petersburg, Russia. (poster presentation)

9. A. C. Ianculescu, D. C. Berger, **C. A. Vasilescu**, B. S. Vasile, G. Fantozzi, G. Bonnefont, I. Pintilie, L. Trupină, L. P. Curecheriu, C. E. Ciomagă, L. Mitoşeriu, R. Truşcă, M. Deluca, A. Gajovic, C. Galassi, "Modification of functional properties induced by size effects in barium titanate zirconate ceramics," 19th Romanian International Conference on Chemistry and Chemical Engineering (RICCCE), 2-5 September, 2015, Sibiu, România. (invited presentation)
8. **C. A. Vasilescu**, R. Truşcă, I. Pintilie, M. Cernea, B. S. Vasile, A. C. Ianculescu, "Microstructure and dielectric behaviour of some cerium-doped barium titanate ceramics obtained via sol-gel processing," 19th Romanian International Conference on Chemistry and Chemical Engineering (RICCCE), 2-5 September, 2015, Sibiu, România. (oral presentation)
7. A. C. Ianculescu, C. A. **Vasilescu**, D. Berger, I. Pintilie, L. Trupină, L. P. Curecheriu, L. Mitoşeriu, "Influence of the grain size and solute content on the dielectric and ferroelectric behaviour of Ba(Ti,Zr)O₃ ceramics," The 8th International Conference on Advanced Materials: ROCAM, 7-10 July, 2015, Bucharest, Romania. (key note lecture)
6. **C. A. Vasilescu**, R. Truşcă, I. Pintilie, M. Cernea, B. S. Vasile, A. C. Ianculescu, "Influence of the dopant content and stoichiometry on the properties of the cerium modified barium titanate ceramics prepared by the sol-gel method," 14th Conference of the European Ceramic Society (ECERS XIV), 21 - 25 June, 2015 Toledo, Spain. (oral presentation)
5. **C. Vasilescu**, T. Dascalu, G. Stanciu, N. Pavel, E. Vasile and R. Trusca, "Transparent 1.0-at.% Nd:YAG ceramic media," TIM 14 Physics Conference - Physics without frontiers, 20-22 November 2014, Timisoara, Romania; presentation CM-P19. (poster presentation)
4. C. Matei, S. Georgescu, **C. Vasilescu**, G. Stanciu, A.-M. Voiculescu and A. Stefan, "Synthesis and characterization of Eu³⁺ doped SrY₂O₄ phosphor," TIM 14 Physics Conference - Physics without frontiers, 20-22 November 2014, Timisoara, Romania; presentation CM-P17. (poster presentation)
3. **C. A. Vasilescu**, T. Dascalu, C. Stanciu, R. Barjega, C. Luculescu and N. Pavel, "Preliminary Synthesis for Transparent 1 at.% Nd-YAG Ceramics," The 14th International Balkan Workshop on Applied Physics, July 2-4, 2014, Constanta, Romania, presentation S2-P08, Book of Abstracts p. 119. (poster presentation)
2. **C. A. Vasilescu**, B. S. Vasile, G. Fantozzi, G. Bonnefont, L. P. Curecheriu, L. Mitoşeriu, R. Truşcă, A. Gajovic, M. Deluca, "Composition-dependent characteristics of nanostructured barium titanate zirconate ceramics prepared by spark plasma sintering," 13th Conference of the European Ceramic Society (ECERS XIII), 23-25 June, 2013, Limoges, France. (oral presentation)
1. **C. A. Vasilescu**, "Investigation of structural and functional properties of ferroelectric BaTi_{1-x}Zr_xO₃ solid solutions prepared by the modified Pechini method," 13th Conference of the European Ceramic Society (ECERS XIII), 23-25 June, 2013, Limoges, France. (Student Speech Contest-the representative of România).