

PhD. Student Elena Mirabela Soare
List of papers that include data from the thesis

PAPERS LIST

1. **E. M. Soare**, C.-A. Stanciu, R. E. Pătru, V.-A. Surdu, L. Pădurariu, N. Horchidan, A.-I. Nicoară, L. Trupină, B. Ş. Vasile, R. D. Truşcă, L. Mitoşeriu, A.-C. Ianculescu, *Grain size effects in $BaTi_{0.90}Hf_{0.10}O_3$ ceramics with phase coexistence: the influence of nanostructuring and of the internal stress on the functional properties*, Journal of Materials Research and Technology-JMR&T, **38** (2025) 5389–5408, I.F. = 6,6
2. **E. M. Soare**, C.-A. Stanciu, R. E. Pătru, V.-A. Surdu, N. Horchidan, L. Mitoşeriu, I. Pintilie, B. Ş. Vasile, A.-I. Nicoară, R. D. Truşcă, A.-C. Ianculescu, *Composition-dependent structural, microstructural and functional characteristics of fine-grained $BaTi_{1-x}Hf_xO_3$ ceramics consolidated by Spark Plasma Sintering*, Journal of the European Ceramic Society, **45** (15), (2025) 117600, I.F. = 6,2
3. R. E. Pătru, C. A. Stanciu, V. A. Surdu, **E. M. Soare**, R. D. Truşcă, B. S. Vasile, A. I. Nicoară, L. Trupină, I. Pasuk, M. Botea, N. Horchidan, L. Mitoşeriu, L. Pintilie, I. Pintilie, A. C. Ianculescu, *Downscaling grain size toward the nanometre range – a key-factor for tuning the crystalline structure, phase transitions, dielectric and ferroelectric behaviour in $Ba_{0.8}Sr_{0.2}TiO_3$ ceramics*, Progress in Solid State Chemistry, **74** (2024) 100457, I.F. = 10,5
4. R.-E. Pătru, C. A. Stanciu, **E. M. Soare**, V.-A. Surdu, R. D. Truşcă, A.-I. Nicoară, B. Ş. Vasile, G. Boni, L. Amarande, N. Horchidan, L. P. Curecheriu, L. Mitoşeriu, L. Pintilie, I. Pintilie, A.-C. Ianculescu, *Grain size-driven effect on the functional properties in $Ba_{0.6}Sr_{0.4}TiO_3$ ceramics consolidated by spark plasma sintering*, Journal of the European Ceramic Society, **43** (8), (2023) 3250-3265, I.F. = 6,2
5. **E. M. Soare**, R. D. Truşcă, M. Anastasescu, A. Ianculescu, M. Gartner, C. A. Stanciu, *Structural and optical characterization of Ce-doped $BaTiO_3$ thin films prepared by the sol-gel method*, University Politehnica of Bucharest Scientific Bulletin Series B-Chemistry and Materials Science, **87** (4), (2025) 25-38, I.F. = 0,3

SCIENTIFIC MEETINGS ATTENDED

- 1) **E. M. Soare**, C.-A. Stanciu, R. Patru, V. A. Surdu, R. D. Trusca, B. Ş. Vasile, I. Pintilie, A. C. Ianculescu, *Microstructure and dielectric properties of sol-gel $BaTi_{1-x}Hf_xO_3$ ceramics*, 14th ECerS Conference for Young Scientists in Ceramics - CYSC 2021, October 2021, oral presentation.
- 2) **E. M. Soare**, C.-A. Stanciu, R. Pătru, V.-A. Surdu, R. Truşcă, B. Vasile, I. Pintilie, A. Ianculescu, *Composition-dependent characteristics of sol-gel $BaTi_{1-x}Hf_xO_3$ ceramics*,

ICC9, XVII ECerS Conference, XVIII Electroceramics Conference, July 2022, poster presentation.

- 3) **E. M. Soare**, M. Crișan, C.-A. Stanciu, R. Pătru, V.-A. Surdu, R.-D. Trușcă, B. Ș. Vasile, I. Pintilie A.-C. Ianculescu, *Influence of the dopant content and sintering method on the properties of hafnium-modified barium titanate ceramics prepared by the sol-gel method*, International Conference of Physical Chemistry - ROMPHYSICHEM 17, September 2023, poster presentation.
- 4) **E. M. Soare**, C.-A. Stanciu, R. E. Pătru, V.-A. Surdu, N. Horchidan, L. Mitoșeriu, I. Pintilie, B. Ș. Vasile, A.-I. Nicoară, R. D. Trușcă, A.-C. Ianculescu, *The influence of composition on structure, microstructure, and functional properties of fine-grained $BaTi_{1-x}Hf_xO_3$ ceramics processed via Spark Plasma Sintering*, 16th ECerS Conference for Young Scientists in Ceramics –CYSC 2025, October 2025, oral presentation.

co-author:

- 5) A.-C. Ianculescu, C. A. Stanciu, **E. M. Soare**, B. S. Vasile, V.-A. Surdu, R. D. Trușcă, R. E. Pătru, I. Pintilie, L. Pintilie, I. Pintilie, M. Botea, M. Udrea, *Properties of bulk graded $(Ba,Sr)TiO_3$ ceramics with various architectures obtained by spark plasma sintering*, ICC9, XVII ECerS Conference, XVIII Electroceramics Conference, July 2022, oral presentation.
- 6) A.-C. Ianculescu. R.-E. Pătru, C. A. Stanciu, **E. M. Soare**, V.-A. Surdu, R. D. Trușcă, A. I. Nicoară, B. Ș. Vasile, G. Boni, L. Amarandei, N. Horchidan, L. P. Curecheriu, L. Mitoșeriu, L. Pintilie, I. Pintilie, *Grain size-driven effects on the functional properties in $Ba_{0.6}Sr_{0.4}TiO_3$ ceramics consolidated by spark plasma sintering*, XVIII Conference & Exhibition of the European Ceramic Society (XVIII ECerS), July 2023, oral presentation.
- 7) A.-C. Ianculescu, V.-A. Surdu, C. A. Stanciu, R.-E. Pătru, **E. M. Soare**, R. D. Trușcă, A. I. Nicoară, B. Ș. Vasile, L. Pintilie, I. Pintilie, L. Mitoșeriu, N. Horchidan, *Barium strontium titanate functional materials: from nanopowders to multiscale-structured bulk ceramics*, International Conference of Physical Chemistry - ROMPHYSICHEM 17, September 2023, oral presentation.
- 8) A.-C. Ianculescu, R. Pătru, C. Stanciu, V. A. Surdu, **E. M. Soare**, A.-I. Nicoară, R. D. Trușcă, B. S. Vasile, I. Pintilie, L. Pintilie, *Multifunctional $(Ba,Sr)TiO_3$ systems: from nanopowders to bulk ceramics –Processing, properties and applications*, 10th Conference on Advanced Materials (ROCAM-2024), July 2024, oral presentation.
- 9) A.-C. Ianculescu, C.-A. Stanciu, **E. M. Soare**, R. E. Pătru, V.-A. Surdu, R. D. Trușcă, B. S. Vasile, A.-I. Nicoară, L. Trupină, I. Pintilie, *$BaTiO_3$ -based functional materials used in electronics: from nanopowders to micro- and nanostructured ceramics*, 12th International Congress on Microscopy & Spectroscopy (INTERM 2025), April 2025, oral presentation.