



Meet our Research Faculty

# Eliane Bsaibess

Sciences and Engineering Department



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## Research Interests

My research activities in the field of materials science focuses on two themes:

The optimization and development of instrumental techniques (adiabatic calorimeter, Wheatstone bridge, P-E hysteresis loop, photopyroelectric method) for renewable energy science applications;

- The non traditional adiabatic calorimetry is based on the use of thermistors and Peltier element allowing to measure small variations of temperature change and heat flux.
- The photopyroelectric technique is one of the photothermal non destructive method applied to thermophysical and optical characterization of liquids and solids.

Solid-state synthesis and characterization of novel ceramic oxides for energy applications (thermoelectric and caloric materials) and liquid crystal ferroelectric materials. Sintering process include both conventional and spark plasma sintering methods. The measurements include a set of dielectric, thermal, electrical, thermoelectric, electrocaloric, structural, microstructural properties.

## Research Collaborations

University of Littoral Côte d'Opale, UDSMM Laboratory, Dunkirk, France:

- PhTT team (Phénomènes de transport thermique) on: Photothermal techniques
- SMAEO team (Systèmes moléculaires pour applications électroniques et électro-optiques) on: Liquid crystals
- MOFA team (Functional oxide materials and applications) on: Materials synthesis

KU Leuven, Belgium, Laboratory Acoustics and Thermal Physics with Pr. Christ Glorieux on: calorimetry techniques, thermography & photoacoustic methods

University of Tours, Blois, France, GREMAN laboratory (Laboratoire multidisciplinaire en matériaux, microélectronique, acoustique et nanotechnologies) on: Materials synthesis (ceramics and thin films)

## Conferences:

June 9 ,2021th International Conference on Caloric Cooling & Applications of Caloric Materials, virtual event

March 2021, Journées annuelles 2021 du GFC, virtual event

February 2021, International Conference and Expo on Advanced Ceramics and Composites, virtual event

March 3 ,2020ème édition J2C, virtual event

Sept 2019 , European Materials Research Society, Warsaw – Poland

June 2019, JTACC+V2019 4 Conference, Budapest – Hungary

Sept 2018, Thermag VIII International Conference on Caloric Cooling, Darmstadt – Germany

April 2018, International Scientific Conference 24th, LAAS 24, Al Kurah – Lebanon  
Congrès Journées de l'ARCUS-E2D2, Rabat – Morocco

March 2018, Journées Annuelles GDR-OXYFUN, Piriac sur Mer – France

Nov 2017, Journée Jeunes Chercheurs GEPROC – UGéPE, Douai – France

Sept 21 ,2017st European conference of thermophysical properties, Graz – Austria

July 19 ,2017th International conference on Photoacoustic and Photothermal Phenomena, Bilbao - Spain

April 22 ,2017nd International scientific conference of LAAS, Beyrouth - Lebanon

## **Publications**

### **Journal Articles**

E. Bsaibess, F. Delorme, I. Monot-Laez and F. Giovannelli, Scripta Materialia 201, p 2021) 113950)

E. Bsaibess, A. Hadj Sahraoui, C. Glorieux, J. Leys, J. Thoen and S. Longuemart, J. Therm. Anal. Calorim. (2021) DOI: 10.1007/s5-10881-021-10973

E. Bsaibess, A. Hadj Sahraoui, Y. Boussoualem, M. Soueidan, B. Duponchel, D.P. Singh, B. Nsouli, A. Daoudi and S. Longuemart, Liquid Crystal 46, p 2019) 1526-1517)

E. Bsaibess, S. Longuemart, M. Soueidan, B. Nsouli and A. Hadj Sahraoui, . Phys. D: Appl. Phys. 51, p 2018) 025306)

### **Affiliations**

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Université de Tours – IUT de Blois  
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