



Selected papers from 9th International Conference on Optical, Optoelectronic and Photonic Materials and Applications and 14th Europhysical Conference on Defects in Insulating Materials, 3–7 July 2022, Ghent, Belgium

Henk Vrielinck^{1,*} and Iwan Moreels²

¹ *Department of Solid State Sciences, Ghent University, Ghent, Belgium*

² *Department of Chemistry, Ghent University, Ghent, Belgium*

Published online:

5 April 2024

© The Author(s), under exclusive licence to Springer Science+Business Media, LLC, part of Springer Nature, 2024

This special issue has ten selected papers from the 9th International Conference on Optical, Optoelectronic and Photonic Materials and Applications (ICOOPMA2022) and 14th Europhysical Conference on Defects in Insulating Materials (EuroDIM 2022) held in Ghent, Belgium, 3–7 July 2022. ICOOPMA2022 was chaired by Dirk Poelman and EuroDIM2022 by Henk Vrielinck, with cochairs Jeroen Beeckman, Johan Lauwaert, Iwan Moreels (all from Ghent University, Belgium), Robert Jackson (Keele University, UK), and Sofie Cambré (University of Antwerp, Belgium). The two conferences were run jointly, with joint plenary lecture and poster sessions, while separate parallel sessions allowed the two conferences to keep their individual character. All participants were welcome to join any of the sessions, to promote cross-fertilization

and exchange of ideas between the research communities. The papers presented at both conferences covered a wide range of topics on materials-related issues, from fundamental to applied research, including not only experimental papers but also theoretical and modelling-related work. The ten papers in this issue represent a small fraction of all presented papers and demonstrate the high quality of the research that was presented throughout both the conferences. All papers have gone through the journal's rigorous refereeing process before they were accepted.

Henk Vrielinck

Iwan Moreels

Guest Editors

1. Department of Solid State Sciences, Ghent University, Belgium (Henk.Vrielinck@UGent.be)

Address correspondence to E-mail: Henk.Vrielinck@UGent.be

E-mail Addresses: Iwan.Moreels@UGent.be

2. Department of Chemistry, Ghent University, Belgium (Iwan.Moreels@UGent.be)

SELECTED PAPERS

Nicolas Roisin (BELGIUM), Raman Strain-Shift Measurements and Prediction from First-Principles in Highly-Strained Silicon.

Rosa Maria Monteverde (ITALY), Proton Bragg peak imaging by colour-centre radiophotoluminescence in lithium fluoride thin-film-on-silicon radiation detectors.

Rosen Todorov (BULGARIA), Formation, structure and optical performance of $\text{AgCd}/\text{Ag}_5\text{Cd}_8$ phases in thin film form.

Oksana Chukova (UKRAINE), Luminescence mechanisms in the $2\text{V}_2\text{O}_5-x\text{Li}_2\text{O}-(98-x)\text{B}_2\text{O}_3$ glass matrices developed for creation of glass-ceramic materials.

Serhii Nedilko (UKRAINE), Interphases in luminescent oxide nanostructured glass-ceramics.

Ayşe Turak (CANADA), Gold-coated tin oxide nanoparticles as potential optical isolator materials:

simulation of absorption and Faraday rotation and comparison with micelle templated core-shell nanoparticles.

Benedetta Albini (ITALY), Raman spectroscopy in pure and doped zinc ferrites nanoparticles.

Sylvain Halindintwali (SOUTH AFRICA), Solid state dewetting of a metal-semiconductor bi-layers deposited onto c-Si substrate.

Benedetta Albini (ITALY), Glass supported SERS chips for emerging pollutant analyses.

Halyna Klym (UKRAINE), Modification of free-volume defects in the $\text{GaS}_2\text{-Ga}_2\text{S}_3\text{-CsCl}$ glasses.

Publisher's Note Springer nature remains neutral with regard to jurisdictional claims in published maps and institutional affiliations.