

# Dirk Poelman

Senior Full Professor, Ghent University, Belgium

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CV August 28, 2024



## PERSONAL DATA

Name	Dirk Roger Clara Poelman
Birth date/place	April 11, 1963, Gent, Belgium
Civil state	Married to Hilde Poelman, 2 children (Stijn °25/03/1995, Nika °10/09/1996)
Home address	Heerweg-Zuid 52, B-9052 Zwijnaarde, Belgium
Work address	LumiLab, Dept. Solid State Sciences, Ghent University, Krijgslaan 281-S1, B-9000 Gent, Belgium

## PROFESSIONAL POSITIONS AND ACHIEVEMENTS

<b>Position</b>	<b>FULL PROFESSOR – Ghent University</b> Responsible for the research group LumiLab ( <a href="http://lumilab.ugent.be/">http://lumilab.ugent.be/</a> ), managing master students, exchange students, PhD students and post-docs. Senior full professor ('gewoon hoogleraar') since 1/10/2020. Lecturer on both Bachelor and Master level for over 800 students yearly.
<b>Research</b>	<b>RESEARCH INTERESTS</b> <ul style="list-style-type: none"><li>• Thin film optics</li><li>• UV-VIS-NIR spectrophotometry and ellipsometry</li><li>• Solid state luminescence (photo-, electro- and cathodoluminescence)</li><li>• Solid state analytical techniques</li><li>• Crystallography and X-ray techniques (XRD, XRF, SAXS, EXAFS)</li><li>• Flat panel display technologies</li><li>• Heterogenous photocatalysis</li><li>• Color and night vision models</li></ul>
<b>Memberships</b>	<b>EDITORIAL AND MEMBERSHIP FUNCTIONS</b> <ul style="list-style-type: none"><li>• Editor of the Dutch Journal of Physics (2003-2012)</li><li>• Member of the Belgian Committee of Crystallography</li><li>• Member of the DUBBLE (Dutch Belgian beam line) program committee, ESRF synchrotron, Grenoble, France (2011-2016)</li><li>• Member of the board and of the permanent committee of the scientific and technical research center diamond (WTOCD) (2014-2021)</li><li>• Main editor for the Elsevier Journal of Luminescence (2016-2022)</li><li>• Section editor of the international MDPI journal Materials</li><li>• Member of the editorial board of MDPI journal Radiation</li><li>• Member of the editorial board of MDPI journal Photochem</li><li>• Member of ECS (Electrochemical Society); treasurer and secretary of the LDM division (Luminescence and Display Materials).</li></ul>

## Services

## SCIENTIFIC SERVICE

- Chair of the Department of Solid State Sciences, UGent
- Promoter of 15 PhD's and jury member of another 75 PhD defenses.
- Chair of the international conference ICOOPMA (Ghent, 2022).

## PUBLICATIONS

<b>Publications</b> <b>285</b> Total From 1637 to 2024	<b>Citing Articles</b> <b>9,258</b> Analyze Total <b>9,046</b> Analyze Without self-citations	<b>Times Cited</b> <b>12,009</b> Total <b>11,152</b> Without self-citations	<b>42.14</b> Average per item	<b>55</b> H-Index
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Scientific profile  UGent bibliography Publons Google Scholar ORCID account LinkedIn	h-index (WoS): <b>55</b> h-index (Scopus): <b>56</b> h-index (Google Scholar): <b>62</b>  <a href="https://biblio.ugent.be/person/801000691888">https://biblio.ugent.be/person/801000691888</a> <a href="https://publons.com/researcher/1237301/dirk-poelman/">https://publons.com/researcher/1237301/dirk-poelman/</a> <a href="https://scholar.google.be/citations?user=IFj9AqQAAAAJ&amp;hl=nl&amp;oi=ao">https://scholar.google.be/citations?user=IFj9AqQAAAAJ&amp;hl=nl&amp;oi=ao</a> <a href="http://orcid.org/0000-0002-3930-172X">http://orcid.org/0000-0002-3930-172X</a> <a href="https://www.linkedin.com/in/dirk-poelman-a534374">https://www.linkedin.com/in/dirk-poelman-a534374</a>
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5 key publications with the highest citation count (source: Web of Science)	<p><b>Persistent Luminescence in Eu<sup>2+</sup>-Doped Compounds: A Review</b>          By: Van den Eeckhout, K., Smet P. F., Poelman D.          MATERIALS <b>3</b> (2010) 2536-2566          Citation number: 871</p> <p><b>Selecting Conversion Phosphors for White Light-Emitting Diodes</b>          By: Smet P. F., Parmentier A. B., Poelman D.          JOURNAL OF THE ELECTROCHEMICAL SOCIETY <b>158</b> (2011) R37-R54          Citation number: 700</p> <p><b>Composition and size-dependent extinction coefficient of colloidal PbSe quantum dots</b>          By: Moreels I., Lambert K., De Muynck D., Vanhaecke F., Poelman D., Martins J., Allan G., Hens Z.          CHEMISTRY OF MATERIALS <b>19</b> (2007) 6101-6106          Citation number: 561</p> <p><b>Methods for the determination of the optical constants of thin films from single transmission measurements: a critical review</b>          By: Poelman, D; Smet, PF          JOURNAL OF PHYSICS D-APPLIED PHYSICS <b>36</b> (2003) 1850-1857          Citation number: 371</p> <p><b>Revealing trap depth distributions in persistent phosphors</b>          By: Van den Eeckhout, Koen; Bos AJJ, Poelman, Dirk; Smet, Philippe F.          PHYSICAL REVIEW B <b>87</b> (2013) 045126          Citation number: 356</p>
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## RECENT INVITED (KEYNOTE) LECTURES

1. "Persistent luminescence: materials and applications", ICTMC-19 (19th Int. Conf. on Ternary and Multinary Compounds), Niigata, Japan, 2014.
2. "Chromium doped persistent phosphors for medical imaging", ECS fall meeting, Phoenix, USA, 2015.
3. "Near-infrared persistent luminescence for medical imaging", ICOOPMA2016 (Int. Conf. on Optical, Optoelectronic and Photonic Materials and Applications), Montreal, Canada, 2016.
4. "Rare Earths for Phosphor Development: the Final Frontier?", Rare Earths 2016, Sapporo, Japan, 2016.
5. "Cr<sup>3+</sup> and Mn<sup>4+</sup>: dopants for near-infrared emitting persistent phosphors", ECS fall meeting, Washington DC, USA, 2017.
6. "Stretching the wave: the quest for long-wavelength phosphors for displays, lighting and medical imaging", Instituto de Ciencia de Materiales de Sevilla, Sevilla, Spain, 2018.
7. "Near-infrared Persistent Luminescence: the Quest for Traps", ICOOPMA2018, Maresias, Brazil, 2018.
8. "Long wavelength phosphors for displays and lighting", International Workshop on Frontier Materials and Nanotechnology, Hanoi, Vietnam, 2018.
9. "Near-Infrared persistent luminescence for medical imaging", 2<sup>nd</sup> International conference on Recent Trends in Renewable Energy and sustainable development, Raipur, India, 2020.
10. "Long-wavelength phosphors for displays and lighting", Workshop on novel materials and medical imaging phosphor materials, Durg, India, 2020.
11. "Long-wavelength phosphors for displays and lighting", PSI (Paul Scherrer Institute) colloquium, April 23, 2021.
12. "GdVO<sub>4</sub>:Nd Near-Infrared Emitting Nanoparticles for Bio-Imaging: From Top to Bottom", XIX Int. Symposium on Luminescence Spectrometry, Gijon, Spain, May 31 – June 3, 2022.
13. "Development of Phosphor-based Detectors for X-ray Imaging and Dosimetry", International Seminar on Luminescence Materials (ISLM-2022), Allepy Kerala, India, December 9-10, 2022.
14. "Near-Infrared emitting nanophosphors for bio-imaging", University of Geosciences colloquium, Beijing, December 15, 2022.
15. "Gd-based phosphors for bio-imaging: the right host for the application", 7th International Conference on Luminescence and its Applications (ICLA-2023), Hyderabad, July 3-6, 2023.
16. "Phosphors for bio-imaging: the significance of the activator concentration and the role of gadolinium", International Conference on Excited States of Transition Elements (ESTE 2023), Poland, September 3-8, 2023.
17. "Using a photochromic passive dosimeter for detection of x-rays, ultraviolet and visible light", ICOOPMA2024, Pardubice, Czech Republic, 2024
18. "Phosphors for bio-imaging: the significance of the activator concentration and the role of gadolinium", 2nd International Conference on Multifunctional Materials and Radiation Measurements (ICMMRM-2024), Chennai, India, 2024