

## PORTRAIT D' ENSEIGNANT-CHERCHEUR

Prénom : Wilfried

Nom : Vervisch

Discipline de Recherche : Détection nucléaire, modélisation et simulation des réactions nucléaires, des semiconducteurs, modélisation, calcul ab initio, Monté Carlo, élément finis

Section CNU : 63

Laboratoire de rattachement : IM2NP

Département pédagogique : MP

### Liste de Publications 2009-2013 :

1. "Full Simulation Study of UV Photodetectors based on pn junctions in Silicon Carbide"  
Author(s): Ottaviani, L.; **Vervisch, W.**; Biondo, S.; et al  
SILICON CARBIDE AND RELATED MATERIALS 2012 Book Series: Materials Science Forum Volume: 740-742 Pages: 1018-1023
2. "4H-silicon carbide thin junction based ultraviolet photodetectors"  
Author(s): Biondo, S.; Lazar, M.; Ottaviani, L.; **Vervisch, W.** et al.  
THIN SOLID FILMS Volume: 522 Pages: 17-19 DOI: 10.1016/j.tsf.2011.12.079 Published: NOV 1 2012
3. "Photo-electrical characterizations of plastic solar modules"  
Author(s): Riviere, Guillaume A.; Simon, Jean-Jacques; Escoubas, Ludovic, **Vervisch, Wilfried.** et al.  
SOLAR ENERGY MATERIALS AND SOLAR CELLS Volume: 102 Pages: 19-25  
DOI: 10.1016/j.solmat.2012.01.030 Published: JUL 2012
4. "Optical-electrical simulation of organic solar cells: Influence of light trapping by photonic crystal and ZnO spacer on electrical characteristics"  
Author(s): **Vervisch, Wilfried**; Riviere, Guillaume; Vedraïne, Sylvain; et al.  
JOURNAL OF APPLIED PHYSICS Volume: 111 Issue: 9 Article Number: 094506 DOI: 10.1063/1.4712292 Published: MAY 1 2012
5. "Influence on electrical characteristics of the design of 4H-SiC ultraviolet photodetectors: Theoretical analysis and simulations"  
Author(s): Biondo, Stéphane; **Vervisch, Wilfried**; Ottaviani, Laurent; et al.  
JOURNAL OF APPLIED PHYSICS Volume: 111 Issue: 2 Article Number: 024506 DOI: 10.1063/1.3676284 Published: JAN 15 2012
6. "Electrical characteristics of SiC UV-Photodetector device: from the p-i-n structure behaviour to the Junction Barrier Schottky structure behaviour"

Author(s): Biondo, S.; Lazar, M.; Ottaviani, L.; **W.; Vervisch** et al.  
HETEROSIC & WASMPE 2011 Book Series: Materials Science Forum Volume:  
711 Pages: 114-117 DOI: 10.4028/www.scientific.net/MSF.711.114  
Published: 2012

7. "Optical-electrical simulation of organic solar cells: excitonic modeling parameter influence on electrical characteristics"

Author(s): **Vervisch, Wilfried**; Biondo, Stephane; Riviere, Guillaume; et al.  
APPLIED PHYSICS LETTERS Volume: 98 Issue: 25 Article Number: 253306  
DOI: 10.1063/1.3582926 Published: JUN 20 2011

8. "Bringing some photonic structures for solar cells to the fore"

Author(s): Escoubas, Ludovic; Simon, Jean-Jacques; Torchio, Philippe; David, Duché; Sylvain ; Vedraïne, **Wilfried; Vervisch**, et al.  
APPLIED OPTICS Volume: 50 Issue: 9 Pages: C329-C339 DOI:  
10.1364/AO.50.00C329 Published: MAR 20 2011

9. "Effect of low temperature and concentration KOH etching on high aspect ratio silicon structures"

Author(s): Defforge, Thomas; Coudron, Loic; Gautier, Gael; et al  
PHYSICA STATUS SOLIDI C: CURRENT TOPICS IN SOLID STATE PHYSICS, VOL 8,  
NO 6 Book Series: Physica Status Solidi C-Current Topics in Solid State Physics  
Volume: 8 Issue: 6 DOI: 10.1002/pssc.201000028 Published: 2011

10. "Title: Optical and Electrical Simulation of 4H-SiC UV Photodetector by Finite Element Method"

Author(s): Biondo, Stephane; **Vervisch, Wilfried**; Ottaviani, Laurent; et al.  
SILICON CARBIDE AND RELATED MATERIALS 2010 Book Series: Materials  
Science Forum Volume: 679-680 Pages: 563-566 DOI:  
10.4028/www.scientific.net/MSF.679-680.563 Published: 2011

### Liste de Communications 2009-2013 :

1. Conference: 9th European Conference on Silicon Carbide and Related Materials (ECSCRM 2012) Location: St Petersburg, RUSSIA Date: SEP 02-06, 2012
2. Conference: EMRS Symposium Q on Engineering of Wide Bandgap Semiconductor Materials for Energy Saving Location: Nice, FRANCE Date: JUN, 2011
3. 4th Workshop on Advanced Semiconductor Materials and Devices for Power Electronics Applications (HeteroSiC & WASMPE 2011) Location: Tours, FRANCE Date: JUN 27-30, 2011
4. 7th International Conference on Porous Semiconductors - Science and Technology (PSST) Location: Valencia, SPAIN Date: MAR 14-19, 2010

5. Conference: 8th European Conference on Silicon Carbide and Related Materials Location: Sundvolden Conf Ctr, Oslo, NORWAY Date: AUG 29-SEP 02, 2010

Collaborations (nationales et/ou internationales) avec d'autres laboratoires de Recherche :

AGH (Pologne), KTH (suède), KIT (Allemagne), SCK (Belgique), CEA, Areva, Schlumberger, INSA