

Curriculum vitae

Dr. Raphaël BUTTÉ

Scientific summary

- **104 publications (including 2 review articles)** published in peer reviewed journals, **1 publications** submitted to a peer reviewed journal, **14 publications** published in peer reviewed journals following an international conference and **6 book chapters**
- **h-index: 30 (> 3500 citations) on Web of Science; 36 (> 4800 citations) on Google Scholar**
- **28 invited talks** in International Conferences/Summer Schools/Workshops and **15 contributed talks** in International Conferences/Workshops
- **Publications Chair/Guest editor** of the Proceedings of the 5th International Workshop on Nitride semiconductors (IWN2008) published in Phys. Stat. Sol. C **6**, issue **S2** (additional papers in Phys. Stat. Sol. A **206**, No. 6 (2009) and Phys. Stat. Sol. B **246**, No. 6 (2009)) and **Scientific secretary** of IWN2008, Montreux, Switzerland, 2008
- **Scientific secretary** of the 5th International Conference on Spontaneous Coherence in Excitonic Systems (ICSCE5), Lausanne, Switzerland, 2011

Personal information

Born in Paris in 1973
Citizenship: French
2 Children

Work address

Institute of Physics
Faculty of Basic Sciences
Station 6
Ecole Polytechnique Fédérale de Lausanne
CH-1015 Lausanne, SWITZERLAND

Contact information

e-mail: raphael.butte@epfl.ch
Phone: +41 (0) 21 693 33 57

Professional experience

Since April 2016, Senior scientist (permanent member of staff) at the Institute of Physics (IPHYS), École Polytechnique Fédérale de Lausanne (EPFL, Switzerland), in the group of Prof. [Nicolas Grandjean](#)

2010 – 2016, Scientific collaborator and lecturer (permanent member of staff) at IPHYS, EPFL, Switzerland, in the group of Prof. [Nicolas Grandjean](#)

2004 – 2010, Scientific collaborator (head of UV optical spectroscopy laboratory) at IPHYS, EPFL, Switzerland, in the group of Prof. [Nicolas Grandjean](#)

2000 – 2004, Postdoctoral research associate – Department of Physics & Astronomy, University of Sheffield (United Kingdom), in the group of Prof. Maurice S. Skolnick (Fellow of the Royal Society)

Higher Education

1997 – 2000: PhD thesis Université Claude Bernard Lyon I (UCBL-I, Lyon, France) – Obtained with Honors. Supervisor: Prof. Robert Meaudre

1996 – 1997: Diplôme d'Études Approfondies (equivalent to MSc level) "Sciences des Matériaux et des Surfaces" – UCBL-I, obtained with honors (ranked 2nd).

1994 – 1996: Licence (equivalent to BSc level) and Maîtrise de Physique – UCBL-I

Research activities

2004-present: Optical properties of III-nitride-based low dimensional structures (physics of microcavities operating in the strong exciton-photon coupling regime including nonlinear optical properties triggered by bosonic properties (condensation of polaritons (Bose-Einstein condensation, non-equilibrium condensates), etc.); optical properties of III-nitride nanostructures (quantum wells, quantum dots) and III-nitride nanocavities (microdisks, 2D photonic crystals and 1D nanobeams).

Reviewing activities

Regular referee for: *Phys. Rev. Lett.*, *Phys. Rev. B*, *Phys. Rev. Appl.*, *Nat. Commun.*, *Nano Lett.*, *ACS Phot.*, *Appl. Phys. Lett.*, *J. Appl. Phys.*, *Sci. Rep.*, *Electron. Lett.*, *Semicond. Sci. Technol.*, *New J. Phys.*, *Superlattices Microstruct.*

Grants

Co-applicant of several Swiss National Science Foundation (SNSF) research projects on "light-matter interaction processes in III-nitride nanophotonic structures". PI for a mobility grant (French-Swiss Germaine de Staël funding for 2018-2019).

Referee for scientific organizations, PhD examination

US Department of Energy (US-DOE), Icelandic Research Fund (IRF), Agence Nationale de la Recherche (ANR, France)
PhD examiner (6)

Supervision of PhD students

Rosbach Georg, 2010-2014; Glauser Marlene 2010-2014; Ciers Joachim 2014-2018; Rousseau Ian 2015-2018

Teaching activities

2010- *Physics of Photonic Semiconductor Devices*, Master in Physics, spring semester (28 h, lectures)
2012- *Semiconductor Physics and Light-Matter Interaction*, Master in Physics, fall semester (28 h, lectures)
2012- *Electronic Properties of Semiconducting Nanostructures*, Doctoral School of Physics, spring semester (21h, lectures, once every two years)
2005-2012 Physics of semiconductor-based devices for electronics and optoelectronics, Master in Physics, fall and spring semesters (28h/semester, tutorials)
2004-2005 Practical work, Bachelor in Physics, 3rd year (96h/semester)

Conference Program Committee member

- 2013** 40th International Symposium on Compound Semiconductors (ISCS2013)
2016 Nanophotonics and Micro/Nano Optics International Conference (Nanop
2016)
2018 International Workshop on Nitride semiconductors (IWN2018)

Scientific information dissemination

2016 Youtube videos on *GaN-based entangled photon sources* realized in the framework of the EU-H2020 “Supertwin” project on *All Solid-State Super-Twinning Photon Microscope*

Part 1: https://www.youtube.com/watch?v=uRgMjeVDP_A

Part 2: <https://www.youtube.com/watch?v=tU8zNQL8T0Y>

Awards

Selected as an Outstanding Referee by the American Physical Society (APS) in 2012 (lifetime award). This program annually recognizes about 150 of the roughly 60,000 currently active APS referees.