

CV Jesús Zúñiga-Pérez

(09/2020)

- 2017 **“Habilitation à diriger des recherches”** from the University Côte d’Azûr (UCA).
Habilitation: [“ZnO optical microcavities: from the strong-coupling regime to a polariton laser, or, from an immature material to a performing microcavity”](#)
Jury: Dr. R. André, Prof. J. Bellessa, Prof. M. Brune, Dr. J. Y. Duboz, Dr. A. Lemaître, and Prof. C. Weisbuch
- Since 2008 **Head of the Nanotechnology** group at CRHEA (Current permanent staff: 5 researchers + 3 engineers)
Member of the Executive Committee of the Center on Nanosciences and Nanotechnologies C’Nano PACA until 2018.
- Since 2007 **Permanent researcher** at CRHEA-CNRS (“Center for research on heteroepitaxy and devices”: <http://www.crhea.cnrs.fr/crhea/>)
- 2006 **Post-doc** at Universität Leipzig, Institut für Experimentelle Physik II, Semiconductor Physics Group headed by Prof. Dr. M. Grundmann.
Postdoctoral stay financed by the Alexander von Humboldt Stiftung:
Postdoc Topic: [“Nanolasers operating at room-temperature”](#)
- 2005 **PhD thesis:** [“Crystal growth and characterization of II-VI oxides thin films”](#)
At the University of Valencia under the supervision of Prof. Dr. V. Muñoz-Sanjosé.
- 2003 **Diploma on Advanced Studies:** [“Photonics: fundamentals aspects and devices”](#)

Diploma thesis: [“Growth of CdTe on sapphire: MOCVD technique”](#)
- 2001 **Physics studies** at the University of Valencia.
- 1978 Born in Valencia (Spain).

Publications and patents:

- **6 patents:** five of them with international PCT extension (EP3514841, US2018/0182622, US2018/0330941, US2019/0081204, WO2019/122461, FR19/06756)
- **123 articles** among which 1 Light: Sci.&Appl., 1 Appl. Phys. Rev., 4 Phys. Rev. Lett., 1 Nano Letters, 15 Phys. Rev. B, 16 Appl. Phys. Lett., 1 Phys. Rev. Mater. and 17 Journal of Applied Physics.
- **33 Invited** presentations
- **22 Oral** presentations
- **Bibliometry:**
Source Google Scholar September 2020:
h-index: 39
i10 index: 84
Total citations: 4436

PhD supervisor or co-supervisor:

- Feng Li: “Fabrication and characterization of ZnO-based microcavities working in the strong-coupling regime: Polariton laser”
Defense: November 2013 (currently: Associate Professor Xian University, China)
- Pierre-Marie Coulon: “Croissance et caractérisation de Micro/Nanofils de GaN”
Defense : May 2014 (currently: Postdoc at Univeristy of Bath, UK)
- Michel El-Khoury: “MOVPE of semipolar GaN on patterned Si substrate”
Defense: February 2016 (currently: Postdoc at University of California Santa Barbara, USA)
- Rami Mantach: “MOVPE of semipolar GaN on patterned SOI substrates”
Defense: September 2019 (currently staff at ALEDIA)
- Philipp John: “Growth and fabrication of ZnMg-oxynitrides transistors”
Defense expected: May 2021
- Max Meunier: “GaN-based single-photon emitters at telecom wavelengths: operation at room-temperature under electrical injection”
Defense expected: November 2022
- Kilian Baril: “ From nanoheteroepitaxy to GaN-based microLEDs”
Defense expected: December 2022

Current financed projects (PI@CRHEA or coordinator):

- ANR-Carnot Exploratoire: “[NanoPEGs : NanoPendeoEpitaxy of GaN on SOI templates](#)”
Coordinator: Dr. G. Feuillet (CEA-LETI)
Duration: 2018-2021
- ANR-17-CE24-0043-01: “[ZONE: Zn and Mg oxynitrides](#)”
Coordinator: Dr. J. Zuniga-Perez (CRHEA-CNRS)
Duration: 2017-2021
- H2020-COFUND MULTIPLY: “[Program in Photonics](#)”
Coordinator: Prof. Sergei Turitsyn (University of Aston)
Duration: 2016-2022
- ANR-16-CE24-0021-02: “[Plug-And-Bose](#)”
Coordinator: Dr. S. Bouchoule (C2N-CNRS)
Duration: 2016-2021
- CNRS Tremplin@INP 2020 : “[ELISE : Epitaxy of Halide Perovskites, towards new physics and devices](#)”
Coordinator: Dr. J. Zuniga-Perez (CRHEA-CNRS)
Duration: 2020
- CNRS Fédération Doebelin Projects 2020 : “[SPARTA: Single Photon Emission](#)”
Coordinator: Dr. J. Zuniga-Perez (CRHEA-CNRS)
Duration: 2020

Previously financed projects (PI@CRHEA):

- Programme d'Investissements d'Avenir PIA FSN2 – AAP2 NANO : “[Blanc Total](#)”
Coordinator: Dr. Philippe Gilet (ALEDIA)
Duration: April 2012- June 2017
- FP7-ICT-2011-8-LARGE: “[NEWLED: Nanostructured Efficient White LEDs based on short-period superlattices and quantum dots](#)”.
Coordinator: Prof. Edik Rafailov (University of Dundee)
Duration: November 2012 – October 2016
- FP7-PEOPLE-ITN-2008: “[CLERMONT4: Exciton-polaritons in microcavities: physics and devices](#)”.
Coordinator: Prof. Alexey Kavokin (Univeristy of Southampton)
Duration: September 2009 – August 2013
- FP7-NMP-2008-LARGE-2: “[SMASH: Smart Nanostructured Semiconductors for Energy-Saving Light Solutions](#)”.
Coordinator: Dr. Martin Strassburg (OSRAM OPTO SEMICONDUCTORS GMBH)
Duration: September 2009 – March 2013

Long-term (>3months) research stays abroad:

- **Alexander von Humboldt Invited Researcher :**
6 months (09/2007-03/2008) + 3 months (02/2010-05/2010) at Universität Leipzig
Project: "Integration of 3D UV nanolasers onto a photonic platform"

Long-term (>3months) invited hosts:

- Prof. Dr. M. Grundmann: University of Leipzig (Germany), 6 months (2015), stay financed by EU
- Prof. Dr. A. Dadgar: University of Magdeburg (Germany), 3 months (2019), stay financed by CNRS invited professorship
- Prof. Dr. M. Grundmann: University of Leipzig (Germany), 6 months (2019/2020), stay financed by CNRS/UCA invited professorship
- Dr. Henryk Teyssere: Institute of Physics of the Polish Academy of Science (Poland), 3 months (2020), stay financed by CNRS invited professorship

Other activities:

- Member of the GDR Nanofils committee (now "Bureau de la Communauté Nanofils », coordinator S. Plissard), and of the Executive Committee of the Center on Nanosciences and Nanotechnologies C'Nano PACA (<http://www.cnano-paca.org/>)
- Member of the Scientific and/or Program Committee of international conferences. Most recent ones include IWN2017, II-VI Conference 2017, PLMCN 2019, Waves 2019, and ICMOVPEXX2020.