



GEMaC

Groupe d'Étude de la Matière Condensée

PUBLICATIONS ET THÈSES NSP

Thèses en cours

Sumit Kumar, ED Interfaces Paris-Saclay

"1D nanostructures based on II-VI nanowires"

Publications 2015-2021 (sélection)

2022

N. A. Althumairi, I. Baig, T. S. Kayed, A. Mekki, A. Lusson, V. Sallet, A. Majid, S. Akhtar, A. Fouzri,

"Structural, morphological, optical, and electrical studies of Tb-doped ZnO micropods elaborated by chemical bath deposition on a p-Si substrate",

Applied Physics A **128**, 559 (2022)

S. Modak, Al. Schulte, C. Sartel, V. Sallet, Y. Dumont, E. Chikoidze, X. Xia, F. Ren, S. J. Pearton, A. Ruzin, L. Chernyak,

"Impact of radiation and electron trapping on minority carrier transport in p-Ga₂O₃"

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Appl. Phys. Lett. **120**, 233503 (2022)

V. Cantelli, S. Guillemin, E. Sarigiannidou, F. Carla, B. Berini, J.-M. Chauveau, D. D Fong, H. Renevier, and V. Consonni

"In situ analysis of the nucleation of O-and Zn-polar ZnO nanowires using synchrotron-based X-ray diffraction"

Nanoscale, 14(3): 680–690, January (2022) [HAL]

S. Kumar, F. Fossard, G. Amiri, J.-M. Chauveau, and V. Sallet.

"Induced structural modifications in ZnS nanowires via physical state of catalyst: Highlights of 15R crystal phase."

Nano Research, pages 377–385, January (2022) [HAL]

2021

A.Marzouki, C. Sartel, N. Haneche, G. Patriarche, A. Lusson, V. Sallet, and M. Oueslati

"Fabrication and characterization of ZnO:Sb/n-ZnO homojunctions."

Applied physics. A, Materials science processing, 127(6), (2021) [HAL]

Z.Chi, F.-G. Tarntair, M. Frégnaux, W.-Y. Wu, C. Sartel, I. Madaci, P. Chapon, V. Sallet, Y.Dumont, A.Pérez-Tomás, R.H. Horng, E. Chikoidze,

"Bipolar self-doping in ultra-wide bandgap spinel ZnGa₂O₄",

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M. E. Bathen, A. Galeckas, R. Karsthof, A. Delteil, V. Sallet, A. Y. Kuznetsov, L. Vines,

"Resolving Jahn-Teller induced vibronic fine structure of silicon vacancy quantum emission in silicon carbide",

Phys. Rev. B **104**, 045120 (2021) – [HAL]

2020

J. M. Urban, G. Chehade, M. Dyksik, M. Menahem, A. Surrente, G.Trippé-Allard, D-K., A. Surrente, G.Trippé-Allard, D-K. Maude, D. Garrot, O. Yaffe, E.Deleporte, P. Plochocka, M. Baranowski,

"Revealing Excitonic Phonon Coupling in (PEA)₂(MA)_{n-1}PbI_{3n+1} 2D Layered Perovskites",

J. Phys. Chem. Lett., 11,15, 58305835, (2020) [HAL]

V. Sallet, C. Deparis, G. Patriarche, C. Sartel, G. Amiri, J.-M. Chauveau, C. Morhain, and J. Z. Perez,

"Why is it difficult to grow spontaneous ZnO nanowires using molecular beam epitaxy?" Nanotechnology 31(38), 385601 (2020). [HAL]

V. Sallet, C. Sartel, C. Arnold, S. Hassani, C. Vilar, G. Amiri, A. Lusson, P. Galtier, J. Barjon, K. Masenelli-Varlot, and B. Masenelli,

"Evidence of O-Polar (000-1) ZnO Surfaces Induced by In Situ Ga Doping" physica status solidi (RRL) – Rapid Research Letters 14(6), 2000037 (2020). [HAL]

E. Chikoidze, C. Sartel, I. Madaci, H. Mohamed, C. Vilar, B. Ballesteros, F. Belarre, E. del Corro, P. Vales-Castro, G. Sauthier, L. Li, M. Jennings, V. Sallet, Y. Dumont, and A. Pérez-Tomás,

"p-Type Ultrawide-Band-Gap Spinel ZnGa₂O₄: New Perspectives for Energy Electronics" Crystal Growth & Design 20(4), 2535–2546 (2020). [HAL]

2019

G. Delport, G. Chehade, F. Lédée, H. Diab, C. Milesi-Brault, G. Trippé-Allard, J. Even, J.-S. Lauret, E. Deleporte, D. Garrot,

"Exciton-exciton annihilation in two-dimensional halide perovskites at room temperature"

J. Phys. Chem. Lett. 10(17), 5153–5159(2019) [HAL]

P. Bouteyre, H. S. Nguyen, J.-S. Lauret, G. Trippé-Allard, G. Delport, F. Lédée, H. Diab, A. Belarouci, C. Seassal, D. Garrot, F. Bretenaker, E. Deleporte,

"Room-temperature cavity polaritons with 3D hybrid perovskite: toward large-surface polaritonic devices"

ACS Photonics 6(7), 1804–1811(2019) [HAL]

V. L. R. Jacques, A. Gallo-Frantz, A. Tejeda, D. L. Bolloc'h, F. Lde, G. Trippé-Allard, D. Garrot, P. Fertey, E. Deleporte, O. Plantevin,

"A new long-range sub-structure found in the tetragonal phase of CH₃NH₃PbI₃ single crystals"

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O. Plantevin, S. Valère, D. Guerfa, F. Lédée, G. Trippé-Allard, D. Garrot, E. Deleporte,
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Journal of Materials Chemistry C 7(33), 10231–10239 (2019). [HAL]

2018

L. Wang, C. Sartel, S. Hassani, V. Sallet, and G. Brémond,
"Resolving ZnO-based coaxial core-multishell heterostructure by electrical scanning probe microscopy"

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"Crystal facet engineering in Ga-doped ZnO nanowires for MIR plasmonics"

Crystal Growth & Design 18 (8), 4287 (2018) [HAL]

2017

G. Sakr, C. Sartel, V. Sallet, A. Lusson, G. Patriarche, P. Galtier, and J. Barjon,
"Surface effects on exciton diffusion in non polar ZnO/ZnMgO heterostructures"
J. Phys.-Condes. Matter 29(48), 485706 (2017). [HAL]

S. Jabri, G. Amiri, S. Hassani, A. Lusson, V. Sallet, A. Meftah, P. Galtier, M. Oueslati,
"Zinc blende-oxide phase transformation upon oxygen annealing of ZnSe shell in ZnO-ZnSe core-shell nanowires"

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I. Stenger, M.-A. Pinault-Thaury, A. Lusson, T. Kociniowski, F. Jomard, J. Chevallier, J.

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"Quantitative analysis of electronic absorption of phosphorus donors in diamond"

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E. Zehani, S. Hassani, A. Lusson, J. Vigneron, A. Etcheberry, P. Galtier, V. Sallet,

"Reconstruction of perfect ZnO nanowires facets with high optical quality"

Appl. Surf. Sci. 411, 374–378 (2017). [HAL]

L. M. Guia, V. Sallet, S. Hassani, M. Carmen Martinez-Tomas, V. Munoz-Sanjose,

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Cryst. Growth Des. 17(12), 6303–6310 (2017). [HAL]

F. Lédée, G. Trippé-Allard, H. Diab, P. Audebert, D. Garrot, J.S. Lauret, E. Deleporte,

"Fast growth of monocrystalline thin films of 2D layered hybrid perovskite"

CrystEngComm 19(19), 208-215 (2017) [HAL]

H. Diab, C. Arnold, F. Lédée, G. Trippé-Allard, G. Delport, C. Vilar, F. Bretenaker, J.

Barjon, J.S. Lauret, E. Deleporte, D. Garrot,

"Impact of Reabsorption on the Emission Spectra and Recombination Dynamics of Hybrid Perovskite Single Crystals"

The Journal of Physical Chemistry Letters, 2977--2983 (2017). [HAL]

Z. Chen, M. Lee, Z. Zhang, et al.,

"Time-Resolved Photoemission Spectroscopy of Electronic Cooling and Localization in CH₃NH₃PbI₃ Crystals"

Phys. Rev. Materials 1(4), 045402 (2017) [HAL]

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W. Geng, M. Manceau, N. Rahbany, V. Sallet, M. De Vittorio, L. Carbone, Q. Glorieux, A.

Bramati, C. Couteau,

"Localised excitation of a single photon source by a nanowaveguide,"

Sci Rep 6, 19721 (2016). [HAL]

F. Donatini, A. de L. Bugallo, P. Tchoulfian, G. Chicot, C. Sartel, V. Sallet, J. Pernot,

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Nano Lett. 16(5), 2938–2944 (2016). [HAL]

L. Wang, V. Sallet, C. Sartel, G. Bremond,

"Cross-section imaging and p-type doping assessment of ZnO/ZnO:Sb core-shell nanowires by scanning capacitance microscopy and scanning spreading resistance microscopy,"

Appl. Phys. Lett. 109(9), 092101 (2016). [HAL]

H. Diab, G. Trippe-Allard, F. Ledee, K. Jemli, C. Vilar, G. Bouchez, V. L. R. Jacques, A. Tejeda, J. Even, J.-S. Lauret, E. Deleporte, D. Garrot,

"Narrow Linewidth Excitonic Emission in Organic-Inorganic Lead Iodide Perovskite Single Crystals,"

J. Phys. Chem. Lett. 7(24), 5093–5100 (2016). [HAL]

K. Abdel-Baki, F. Boitier, H. Diab, et al.,

"Exciton dynamics and non-linearities in two-dimensional hybrid organic perovskites"

Journal of Applied Physics, 119 (6), 06430 (2016) [HAL]

2015

P. Dzik, M. Vesely, M. Kete, E. Pavlica, U. L. Stangar, M. Neumann-Spallart,

"Properties and Application Perspective of Hybrid Titania-Silica Patterns Fabricated by Inkjet Printing,"

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A. Yangu, D. Garrot, J. S. Lauret, A. Lusson, G. Bouchez, E. Deleporte, S. Pillet, E. E. Bendeif, M. Castro, S. Triki, Y. Abid, K. Boukheddaden,

"Optical Investigation of Broadband White-Light Emission in Self-Assembled Organic-Inorganic Perovskite (C₆H₁₁NH₃)(₂)PbBr₄,"

J. Phys. Chem. C 119(41), 23638–23647 (2015). [HAL]

K. Jemli, P. Audebert, L. Galmiche, et al.,

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Publications 2010-2014

Voir liste publications NSP 2010-2014

