Guillaume Saint-Girons (DR2-CNRS, section 8)

Production scientifique au 10 juillet 2025

(voir bilan en première page)

Bilan de la production scientifique

Le tableau ci-dessous donne une idée du volume de ma production scientifique depuis le début de ma carrière et sur la période d'évaluation

	Depuis le début de ma carrière	**Sur la période d'évaluation (2017 – 2025)**
Chapitres d'ouvrage et monographies	7	1
Brevets	9	3
Conférences invitées	**49** dont - 28 internationales (13 perso) - 21 nationales (13 perso)	**14** dont - 5 internationales (2 perso) - 9 nationales (5 perso)
Séminaires invités	12 (5 internationaux)	2 (1 international)
Revues internationales à comité de lecture	139 (+ 2 en révision)	32 (+ 2 en révision)
Conférences internationales	157	39
Conférences nationales	130	39

h-factor : **34** (Google Scholar, 10 juillet 2025)

Dans la liste de publications qui suit, les titres des publications correspondant à la période d'évaluation sont en rouge. Les noms des doctorants que j'ai encadrés sont indiqués en orange. 85 des 141 publications dans des revues internationales à comité de lecture dont je suis auteur sont co-signées par des doctorants que j'ai encadrés (soit environ 60%).

La figure ci-dessous, dans laquelle les barres orange donnent la fraction de mes publications co-signées par des doctorants que j'ai encadrés, illustre l'évolution de ma production scientifique.

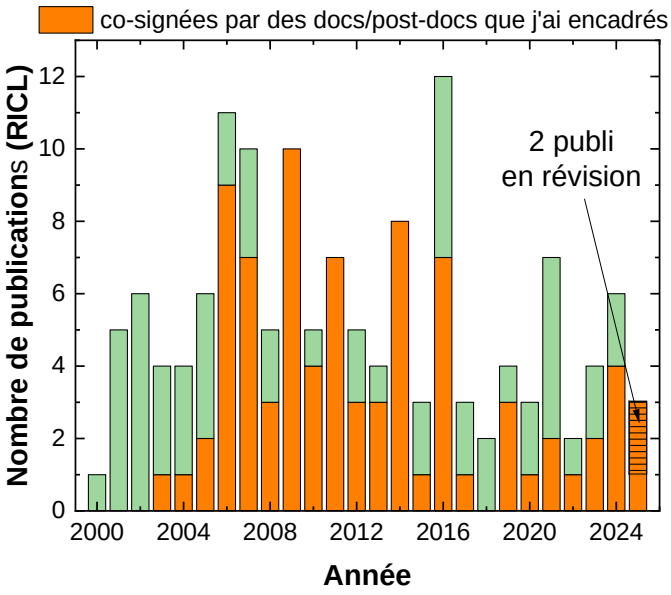

Table des matières

Brevets

1. InGaAs/GaAs lasers on silicon produced by LEPECVD and MOCVD
EPISPEED AG, H. von Känel, I. Sagnes, G. Saint-Girons, S. Bouchoule
Pub. N° WO/2005/025019, app. N° PCT/EP2004/009873, 17.03.2005

2. High-k heterostructure
C. Merckling, M. El-Kazzi, G. Saint-Girons and G. Hollinger
Pub. N° WO/2009/027765, app. N° PCT/IB2007/003415, 28.08.2007

3. Epitaxial solid state semiconducting hetero-structures and method for making same
G. Saint-Girons, P. Regreny, G. Hollinger, G. Patriarche, L. Largeau
Pub. N° WO/2009/047448, app. N° PCT/FR2008/051669, 17.09.2008

4. Système de contrôle de dépôt de couches minces comportant une source de lumière continue et un spectromètre
G. Saint-Girons, R. Rousseau, C. Botella, J. Morville
Enregistrement INPI FR2308685, 11.08.2023
https://hal.science/hal-04243462
WO2025036783A1/ FR3152058A1

5. Système de contrôle de dépôt de couches minces comportant une source de lumière continue et une cavité optique
G. Saint-Girons, R. Rousseau, C. Botella, J. Morville
Enregistrement INPI FR2308684, 11.08.2023
https://hal.science/hal-04243465
WO2025036782A1/ FR3152057A1

6. Système de contrôle de dépôt de couches minces comportant une cavité optique
G. Saint-Girons, R. Rousseau, C. Botella, J. Morville
Enregistrement INPI FR2308666, 11.08.2023
https://hal.science/hal-04243469
WO2025036781A1/FR3152056A1

Monographies

Thèse de doctorat

Epitaxie en phase vapeur aux organométalliques et caractérisations structurales et optiques de boîtes quantiques d'In(Ga)As pour l'émission autour de 1,3 µm sur substrat de GaAs

G. Saint-Girons, Université Paris VI-Jussieu, Marcoussis, 3 avril 2002.

Jury : Y. Guldner, J. Massies, P. Boucaud, B. Deveaud-Pledran, E. Rosencher, B. Etienne, I. Sagnes

Thèse publiée aux éditions des Presses Académiques Francophones, ISBN 3838189752

Habilitation à diriger des recherches

Epitaxie des systèmes hétérogènes

G. Saint-Girons, Université Claude-Bernard/Lyon 1, Ecole Centrale de Lyon, 5 juin 2009

Jury : J. Massies, P. Müller, F. Glas, J. Fompeyrine, M-N. Semeria, J-L. Barrat, G. Hollinger, G. Patriarche

Chapitres d'ouvrages

1. « Vers l'intégration d'hétérostructures et de nanostructures III-V et Ge sur silicium pour la microélectronique et l'optoélectronique »
G. Saint-Girons, M. Gendry, H. dumont, P. Regreny, J. Cheng, K. Naji, B. Vilquin, G. Niu, G. Grenet, Y. Robach, G. Hollinger, G. Patriarche, L. Largeau, C. Priester, I. Devos
pp. 179-182 in La micro-nanoélectronique, enjeux et mutations, CNRS editions, 2009.
ISBN 978-2-271-06829-3

2. « Epitaxie d'oxydes fonctionnels sur silicium pour la microélectronique avancée » B. Vilquin, P. Lecoeur, G. Niu, S. Autier-Laurent, G. Saint-Girons, V. Pillard, Y. Robach, G. Hollinger
in La micro-nanoélectronique, enjeux et mutations, CNRS editions, 2009.
ISBN 978-2-271-06829-3

3. «Crystalline oxides, strain and epitaxial growth : epitaxy of highly dissimilar systems »
G. Saint-Girons
in "Mechanics of Nano-Objects", Presses des Mines 2011.
https://www.pressesdesmines.com/produit/mechanics-of-nano-objects/

4. "Development of Epitaxial Oxide Ceramics Nanomaterials Based on Chemical Strategies on Semiconductor Platforms"
A Carretero-Genevrier, R Bachelet, G Saint-Girons, R Moalla, JM Vila-Fungueiriño, B Rivas-Murias, F Rivadulla, J Rodriguez-Carvajal, A Gomez, J Gazquez, M Gich, N Mestres
in "Advanced Ceramic, Materials", Wiley 2016.
https://onlinelibrary.wiley.com/doi/book/10.1002/9781119242598

5. « Epitaxial systems combining oxides and semiconductors »
G. Niu, G. Saint-Girons and B. Vilquin
Chap.18 (pp. 451-475) in Molecular Beam Epitaxy : from Research to Mass Production, Elsevier 2012, ISBN 978-0-12-387839-7
Second Ed. Chap.17 (pp.377-402), 2018
https://doi.org/10.1016/B978-0-12-812136-8.00018-9

Publications dans des revues internationales à comité de lecture

1. 1,3µm electroluminescence of LP-MOVPE grown InAs/GaAs quantum dots, and influence of the re-growth temperature on the spectral response
G. Saint-Girons, A. Mereuta, J.M. Gérard, A. Ramdane, I. Sagnes
Mat. Sci. Engin. B **78**, 145, (2000).
https://doi.org/10.1016/S0921-5107(00)00542-0

2. Bimodal distribution of Indium composition in arrays of Low-Pressure Metal-Organic Vapour-Phase Epitaxy grown InGaAs/GaAs quantum dots
G. Saint-Girons, G. Patriarche, L. Largeau, J. Coelho, A. Mereuta, J.M. Moison, J.M. Gérard, I. Sagnes
Appl. Phys. Lett. **79**, 2157, (2001).
https://doi.org/10.1063/1.1406553

3. Investigations on GaAsSbN/GaAs quantum wells for 1.3-1.55 µm emission
J.C. Harmand, G. Ungaro, J. Ramos, E.V.K. Rao, G. Saint-Girons, R. Teissier, G. Le Roux, L. Largeau, G. Patriarche
J. Cryst. Growth **227**, 553, (2001).
https://doi.org/10.1016/S0022-0248(01)00765-5

4. MOCVD InP/AlGaInAs Distributed Bragg Reflector for 1.55 µm VCSEL
I. Sagnes, G. Le Roux, C. Mériadec, A. Mereuta, G. Saint-Girons, M. Bensoussan
Electron. Lett. **37**, 500, (2001).
10.1049/el:20010329

5. (InGa)(NAs)/GaAs structures emitting in 1-1.6 µm wavelength range
A. Mereuta, G. Saint-Girons, S. Bouchoule, I. Sagnes, F. Alexandre, G. Le Roux, J. Decobert and A. Ougazzaden
Opt. Mat. **17**, 185, (2001).
https://doi.org/10.1016/S0925-3467(01)00079-9

6. Influence of the thermal treatment on the optical and structural properties of 1.3 µm emitting LP-MOVPE grown InAs/GaAs quantum dots
G. Saint-Girons, A. Mereuta, G. Patriarche, J.M. Gérard and I. Sagnes
Opt. Mat. **17**, 263, (2001).
https://doi.org/10.1016/S0925-3467(01)00089-1

7. Metal-Organic Vapour-Phase Epitaxy of defect-free InGaAs/GaAs quantum dots emitting around 1.3 µm
G. Saint-Girons, G. Patriarche, L. Largeau, J. Coelho, A. Mereuta, J.M. Gérard, I. Sagnes
J. Cryst. Growth **235**, 89, (2002).
https://doi.org/10.1016/S0022-0248(01)01817-6

8. Origin of the bimodal distribution of Low-Pressure Metal-Organic Chemical-Vapor-Epitaxy grown InGaAs/GaAs quantum dots
G. Saint-Girons, G. Patriarche, A. Mereuta, I. Sagnes
J. Appl. Phys. **91**, 3859, (2002).
https://doi.org/10.1063/1.1448887

9. Photoluminescence quenching of a Low-Pressure Metal-Organic Vapor-Phase-Epitaxy grown quantum dots array with bimodal inhomogeneous broadening.
G. Saint-Girons, I. Sagnes
J. Appl. Phys. **91**, 10115, (2002).
https://doi.org/10.1063/1.1481968

10. <500-fs soliton pulse in a passively mode – locked broadband surface-emitting laser with 100-mW average power
A. Garnache, S. Hoogland, A.C. Tropper, I. Sagnes, G. Saint-Girons, J.S. Roberts
Appl. Phys. Lett. **80**, 3892, (2002).
https://doi.org/10.1063/1.1482143

11. Near-infrared waveguide photodetector with Ge/Si self-assembled quantum dots
M. Elkurdi, P. Boucaud, S. Sauvage, O. Kermarrec, Y. Campidelli, D. Bensahel, G. Saint-Girons, I. Sagnes
Appl. Phys. Lett. **80**, 509, (2002).
https://doi.org/10.1063/1.1435063

12. Silicon-on-insulator waveguide photodetector with Ge/Si self-assembled islands
M. El kurdi, P. Boucaud, S. Sauvage, G. Fishman, O. Kermarrec, Y. Campidelli, D. Bensahel, G. Saint-Girons, I. Sagnes, and G. Patriarche
J. Appl. Phys. **92**, 1858, (2002).
https://doi.org/10.1063/1.1493656

13. CW operation of 1.5 µm optically-pumped external-cavity VCSEL monolithically grown by MOCVD
C. Symonds, I. Sagnes, A. Garnache, S. Hoogland, G. Saint-Girons, A. Mereuta, A.C. Tropper and J.L. Oudar
Applied Optics **42**, 6678, (2003).
10.1364/AO.42.006678

14. Room Temperature laser operation of strained InGaAs/GaAs QW structure monolithically grown by MOVCD on LE-PECVD Ge/Si virtual substrate
Y. Chriqui, G. Saint-Girons, S. Bouchoule, G. Isella, H. von Kaenel, I. Sagnes
Electron. Lett **39**, 1658, (2003).
10.1049/el:20030926

15. Silicon-on-insulator and SiGe waveguide photodetectors with Ge/Si self-assembled islands
M. El kurdi, P. Boucaud, S. Sauvage, G. Fishman, O. Kermarrec, Y. Campidelli, D. Bensahel, G. Saint-Girons, G. Patriarche and I. Sagnes.
Physica E **16**, 523, (2003).
https://doi.org/10.1016/S1386-9477(02)00633-1

16. Electromodulation of the interband and intraband absorption of Ge/Si self assembled islands
M. Elkurdi, P. Boucaud, S. Sauvage, G. Fishman, O. Kermarrec, Y. Campidelli, D. Bensahel, G. Saint-Girons, G. Patriarche and I. Sagnes.
Physica E **16**, 450, (2003).
https://doi.org/10.1016/S1386-9477(02)00630-6

17. Photoluminescence probing of non-radiative channels in hydrogenated In(Ga)As/GaAs quantum dots
G. Saint-Girons, A. Lemaître, V. Navarro-Paredes, G. Patriarche, E.V.K. Rao, I. Sagnes and B. Theys.
J. Cryst. Growth **264**, 334, (2004).
https://doi.org/10.1016/j.jcrysgro.2004.01.017

18. Direct growth of GaAs based structures on exactly (001)-oriented Ge/Si virtual substrates : reduction of the structural defect density and observation of electroluminescence at room temperature under CW electrical injection.
Y. Chriqui, L. Largeau, G. Patriarche, G. Saint-Girons, S. Bouchoule, I. Sagnes, D. Bensahel,Y. Campidelli and O. Kermarrec
J. Cryst. Growth **265**, 53, (2004).
https://doi.org/10.1016/j.jcrysgro.2004.01.038

19. Long-range ordering of III-V semiconductor nanostructures by shallowly buried dislocation networks
J. Coelho, G.Patriarche, F. Glas, G. Saint-Girons, and I. Sagnes
J. Phys: Condens. Matter **16**, 7941, (2004).
https://doi.org/10.1088/0953-8984/16/45/016

20. Buried dislocation networks designed to organize the growth of III-V semiconductor nanostructures
J. Coelho, G. Patriarche, F. Glas, G. Saint-Girons, I. Sagnes and L. Largeau
Phys. Rev. B **70**, 155329, (2004).
https://doi.org/10.1103/PhysRevB.70.155329

21. Long-wavelength room-temperature operation of a strained InGaAs/GaAs quantum well structure monolithically grown by MOCVD on a LE-PECVD graded misoriented Ge/Si virtual substrate
Y. Chriqui, G. Saint-Girons, G. Isella, H. Von Kaenel, S. Bouchoule, I. Sagnes
Opt. Mat. **27**, 846, (2005).
https://doi.org/10.1016/j.optmat.2004.08.022

22. Stess-engineered orderings of self-assembled III-V semiconductor nanostructures
J. Coelho, G. Patriarche, F. Glas, I. Sagnes and G. Saint-Girons
Phys. Stat. Sol.c **2**, 1245, (2005).
https://doi.org/10.1002/pssc.200460413

23. Electroabsorption spectroscopy of Ge/Si self-assembled islands
M. El kurdi, P. Boucaud, S. Sauvage, G. Fishman, O. Kermarrec, Y. Campidelli, D. Bensahel, G. Saint-Girons, I. Sagnes, and G. Patriarche
J. Appl. Phys. **97**, 083525, (2005).
https://doi.org/10.1063/1.1874296

24. Dislocation networks adapted to order the growth of III-V semiconductor nanostructures
J. Coelho, G. Patriarche, F. Glas, I. Sagnes and G. Saint-Girons
Phys. Stat. Sol.c 2, 1933, (2005).
https://doi.org/10.1002/pssc.200460528

25. Carrier dynamics in GaInAs/InP near-surface quantum wells
C. Symonds, J. Mangeney, G. Saint-Girons and I. Sagnes
Appl. Phys. Lett. **87**, 012107, (2005).
https://doi.org/10.1063/1.1993763

26. InAs/InP(001) quantum dots emitting at 1.55 µm grown by Low-Pressure Metalorganic Vapor-Phase Epitaxy
A. Michon, G. Saint-Girons, G. Beaudoin, I. Sagnes, L. Largeau and G. Patriarche
Appl. Phys. Lett. **87**, 253114, (2005).
https://doi.org/10.1063/1.2150271

27. Buried dislocation networks for the controlled growth of III-V semiconductors
F. Glas, J. Coelho, G. Patriarche, G. Saint-Girons
J. Cryst. Growth **275**, e1647, (2005).
https://doi.org/10.1016/j.jcrysgro.2004.11.219

28. Indium incorporation in In-rich InGaAs/GaAs layers grown by Low-Pressure Metalorganic Vapor Phase Epitaxy and its influence on the growth of self-assembled quantum dots.
G. Saint-Girons, I. Sagnes and G. Patriarche.
Phys. Rev. B **73**, 045308, (2006).
https://doi.org/10.1103/PhysRevB.73.045308

29. Microphotoluminescence of exciton and biexciton around 1.5 µm from a single InAs/InP(001) quantum dot.
G. Saint-Girons, N. Chauvin, A. Michon, G. Patriarche, G. Beaudoin, G. Brémond, C. Bru-Chevallier and I. Sagnes.
Appl. Phys. Lett. **88**, 133101, (2006).
https://doi.org/10.1063/1.2185008

30. Nanoepitaxy of InAs/InP quantum dots by metalorganic vapor phase epitaxy for 1.55 µm emittors
J.M. Benoît, L. Le Gratiet, G. Beaudoin, A. Michon, G. Saint-Girons, R. Kuszelewicz and I. Sagnes
Appl. Phys. Lett. **88**, 041113, (2006).
https://doi.org/10.1063/1.2167804

31. Thermodynamical analysis of the dispersion in size and shape of InAs/InP(001) quantum dots.
A. Michon, I. Sagnes, G. Patriarche, G. Beaudoin, M.N. Mérat-Combes and G. Saint-Girons.
Phys. Rev. B **73**, 165321, (2006).
https://doi.org/10.1103/PhysRevB.73.165321

32. Effect of cap-layer growth rate on morphology and luminescence of InAs/InP(001) quantum dots grown by Metalorganic Vapor-Phase Epitaxy
A. Michon, I. Sagnes, G. Patriarche, G. Beaudoin, M.N. Mérat-Combes and G. Saint-Girons.
J. Appl. Phys. **100**, 033508, (2006).
https://doi.org/10.1063/1.2227709

33. Thermodynamic description of the competition between quantum dots and quantum dashes in the InAs/InP(001) system
G. Saint-Girons, A. Michon, I. Sagnes, G. Beaudoin and G. Patriarche
Phys. Rev. B **74**, 245305, (2006).
https://doi.org/10.1103/PhysRevB.74.245305

34. Initial stage of the overgrowth of InP on InAs/InP(001) quantum dots: formation of InP terraces driven by preferential nucleation on quantum dot edges.
G. Saint-Girons, G. Patriarche, A. Michon, G. Beaudoin, I. Sagnes, K. Smaali and M. Troyon
Appl. Phys. Lett. **89**, 031923, (2006).
https://doi.org/10.1063/1.2233554

35. Imaging the electric properties of InAs/InP(001) quantum dots capped with a thin InP layer by conductive atomic force microscopy. Evidence of memory effect
K. Smaali, M. Troyon, A. El Hdiy, M. Molinari, G. Saint-Girons and G. Patriarche
Appl. Phys. Lett. **89**, 112115, (2006).
https://doi.org/10.1063/1.2349288

36. Structural properties of epitaxial $SrTiO_3$ thin films grown by molecular beam epitaxy on Si(001)
G. Delhaye, C. Merckling, M. El-Kazzi, G. Saint-Girons, M. Gendry, Y. Robach, G. Hollinger, L. Largeau and G. Patriarche
J. Appl. Phys. **100**, 124109, (2006).
https://doi.org/10.1063/1.2407273

37. Pseudomorphic MBE growth of γ-Al_2O_3(001) on Si(001) and evidence for spontaneous lattice reorientation during epitaxy
C. Merckling, M. El-Kazzi, G. Delhaye, G. Saint-Girons, G. Hollinger L. Largeau and G. Patriarche
Appl. Phys. Lett. **89**, 232907, (2006).
https://doi.org/10.1063/1.2403902

38. InAs/InP(001) quantum dots and quantum sticks grown by MOVPE: shape, anisotropy and formation process
A. Michon, G. Patriarche, I. Sagnes, G. Beaudoin, and G. Saint-Girons
Phys. Stat. Sol. c **3**, 3928, (2006).
https://doi.org/10.1002/pssc.200671539

39. InAs nanocrystals on SiO_2/Si by molecular beam epitaxy for memory applications
M. Hocevar, P. Regreny, A. Descamps, D. Albertini, G. Saint-Girons, A. Souifi, M. Gendry, and G. Patriarche
Appl. Phys. Lett. **91**, 133114 (2007).
https://doi.org/10.1063/1.2793694

40. Density of InAs/InP(001) quantum dots grown by metal-organic vapor phase epitaxy: Independent effects of InAs and cap-layer growth rates
A. Michon, G. Patriarche, G. Beaudoin, G. Saint-Girons, N. Gogneau, and I. Sagnes
Appl. Phys. Lett. **91**, 102107 (2007).
https://doi.org/10.1063/1.2779101

41. Growth of crystalline γ-Al_2O_3 on Si by molecular beam epitaxy: Influence of the substrate orientation
C. Merckling, M. El-Kazzi, G. Saint-Girons, G. Hollinger, L. Largeau, G. Patriarche, V. Favre-Nicolin, and O. Marty
J. Appl. Phys. **102**, 024101 (2007).
https://doi.org/10.1063/1.2753684

42. Development of robust interfaces based on crystalline γ-Al_2O_3(001) for subsequent deposition of amorphous high-κ oxides
C. Merckling, M. El-Kazzi, L. Becerra, L. Largeau, G. Patriarche, G. Saint-Girons and G. Hollinger
Microelec. Eng. **84**, 2243 (2007).
https://doi.org/10.1016/j.mee.2007.04.053

43. Strain relaxation and critical thickness for epitaxial $LaAlO_3$ thin films grown on $SrTiO_3$(001) substrates by molecular beam epitaxy
C. Merckling, M. El-Kazzi, G. Delhaye, V. Favre-Nicolin, Y. Robach, M. Gendry, G. Grenet, G. Saint-Girons and G. Hollinger
J. Cryst. Growth **306**, 47, (2007).
https://doi.org/10.1016/j.jcrysgro.2007.04.048

44. Thermodynamic analysis of the shape, anisotropy and formation process of InAs/InP(001) quantum dots and quantum sticks grown by metalorganic vapor phase epitaxy
G. Saint-Girons, A. Michon, I. Sagnes, G. Beaudoin and G. Patriarche
Surf. Sci. **601**, 2765 (2007).
10.1016/j.susc.2006.12.040
https://doi.org/10.1016/j.susc.2006.12.040

45. Epitaxial growth of $LaAlO_3$ on Si(001) using interface engineering
C. Merckling, G. Delhaye, M. El-Kazzi, S. Gaillard, Y. Rozier, L. Rapenne, B. Chenevier, O. Marty, G. Saint-Girons, M. Gendry, Y. Robach and G. Hollinger
Microelectronics Reliability **47**, 540 (2007).
https://doi.org/10.1016/j.microrel.2007.01.036

46. Monolithic integration of InP based heterostructures on silicon using crystalline Gd_2O_3 buffers
G. Saint-Girons, G, P. Regreny L. Largeau L, G. Patriarche, G. Hollinger.
Appl. Phys. Lett. **91**, 241912 (2007).
https://doi.org/10.1063/1.2824466

47. Ultralow equivalent oxide thickness obtained for thin amorphous $LaAlO_3$ layers grown on Si(001)
L. Becerra, C. Merckling, N. Baboux, C. Plossu, O. Marty, M. El-Kazzi, G. Saint-Girons, B. Vilquin, G. Hollinger.
Appl. Phys. Lett. **91**, 192909 (2007).
https://doi.org/10.1063/1.2811956

48. Local electronic transport through InAs/InP(001) quantum dots capped with a thin InP layer studied by an AFM conductive probe
M. Troyon, K. Smaali, M. Molinari, A. El Hdiy, G. Saint-Girons, G. Patriarche.
Semicond. Sci. Technol. **22**, 755 (2007).
https://doi.org/10.1088/0268-1242/22/7/014

49. Self-assembled Ge nanocrystals on $BaTiO_3/SrTiO_3/Si(001)$
L. Largeau, G. Patriarche G, G. Saint-Girons, G. Delhaye, G. Hollinger.
Appl. Phys. Lett. **92**, 031904 (2008).
https://doi.org/10.1063/1.2837629

50. De-relaxation of plastically relaxed InAs/GaAs quantum dots during the growth of a GaAs encapsulation layer
G**.** Saint-Girons, I. Sagnes, G. Patriarche
J. Cryst. Growth **310**, 536 (2008).
https://doi.org/10.1016/j.jcrysgro.2007.11.053

51. Spontaneous compliance of the $InP/SrTiO_3$ heterointerface
G. Saint-Girons, C. Priester, P. Regreny, G. Patriarche, L. Largeau, V. Favre-Nicolin, G. Xu, Y. Robach, M. Gendry, G. Hollinger
Appl. Phys. Lett. **92,** 241907 (2008).
https://doi.org/10.1063/1.2944140

52. Competition between InP and In_2O_3 islands during the growth of InP on $SrTiO_3$
G**.** Saint-Girons, P. Regreny, J. Cheng, G. Patrairche, L. Largeau, M. Gendry, G. Xu, Y. Robach, C. Botella, G. Grenet, G. Hollinger
J. Appl. Phys. **104**, 033509 (2008).
https://doi.org/10.1063/1.2963484

53. Epitaxial growth of high-κ oxides on silicon
C. Merckling, G. Saint-Girons, G. Delhaye, G. Patriarche, L. Largeau, V. Favre-Nicollin, M. El-Kazzi, P. Regreny, B. Vilquin, O. Marty, C. Botella, M. Gendry, G. Grenet, Y. Robach, G. Hollinger
Thin Solid Films, **517**, 197 (2008).
https://doi.org/10.1016/j.tsf.2008.08.165

54. Impact of a γ-$Al_2O_3(001)$ barrier on LaAlO3 metal-oxide-semiconductor capacitor electrical properties
L. Becerra, C. Merckling, M. El-Kazzi, N. Baboux, B. Vilquin, G. Saint-Girons, C. Plossu, and G. Hollinger
J. Vac. Sci. Technol. B **27** 384 (2009).
https://doi.org/10.1116/1.3065437

55. Influence of the surface reconstruction on the growth of InP on $SrTiO_3(001)$
J. Cheng, P. Regreny, L. Largeau, G. Patriarche, O. Mauguin, K. Naji, G. Hollinger, G. Saint-Girons,
J. Cryst. Growth **311**, 1042 (2009).
https://doi.org/10.1016/j.jcrysgro.2008.12.014

56. X-ray photoelectron study of thin Al_2O_3 films grown on Si(111) by molecular beam epitaxy.
M/ El-Kazzi, G. Grenet, C. Merckling, G. Saint-Girons, C. Botella, O. Marty and G. Hollinger
Phys. Rev. B **79**, 195312, (2009).
https://doi.org/10.1103/PhysRevB.79.195312

57. Twin formation during the growth of InP on $SrTiO_3$
J. Cheng, L. Largeau, G. Patriarche, P. Regreny, G. Hollinger, G. Saint-Girons
Appl. Phys. Lett. **94**, 231902, (2009).
https://doi.org/10.1063/1.3151826

58. Molecular beam deposition of $LaAlO_3$ on silicon for sub-22 nm CMOS technological nodes : toward a perfect control of the oxide/silicon heteorinterface
S. Pelloquin, L. Becerra, G. Saint-Girons, C. Plossu, N. Baboux, D. Albertini, G. Grenet, G. Hollinger
Microelec. Eng. **86**, 1686, (2009).
https://doi.org/10.1016/j.mee.2009.03.111

59. Crystal orientation of GaAs islands grown on $SrTiO_3$(001) by molecular beam epitaxy
L. Largeau, J. Cheng, P. Regreny, G. Patriarche, A. Benamrouche, Y. robach, M. Gendry, G. Hollinger, G. Saint-Girons
Appl. Phys. Lett. **95**, 011907, (2009).
https://doi.org/10.1063/1.3168500

60. Molecular beam epitaxy of $SrTiO_3$ on Si(001) : early stages of the growth and strain relaxation
G. Niu, G. Saint-Girons, B. Vilquin, G. Delhaye, JL Maurice, C. Botella, Y. Robach, G. Hollinger
Appl. Phys. Lett. **95**, 062902, (2009).
https://doi.org/10.1063/1.3193548

61. Accommodation at the interface of highly dissimilar semiconductor/oxide epitaxial systems
G. Saint-Girons, J. Cheng, P. Regreny, L. Largeau, G. Patriarche, and G. Hollinger
Phys. Rev. B **80**, 155308, (2009).
https://doi.org/10.1103/PhysRevB.80.155308

62. Optically active defects in an InAsP/InP quantum well monolithically grown on $SrTiO_3$/Si(001)
J. Cheng, T. Aviles, A. El-Akra, C. Bru-Chevallier, L. Largeau, G. Patriarche, P. Regreny, A. Benamrouche, Y. Robach, G. Hollinger and G. Saint-Girons
Appl. Phys. Lett. **95**, 232116, (2009).
https://doi.org/10.1063/1.3273850

63. Growth temperature dependence of Gd_2O_3 films on Si(111)
G. Niu, B. Vilquin, N. Baboux, C. Plossu, L. Becerra, G. Saint-Girons and G. Hollinger
Microelec. Eng. **86**, 1700, (2009).
10.1016/j.mee.2009.03.107

64. Oxide heterostructures for nanoelectronics
C. Dubourdieu, I. Gélard, O. Salicio, G. Saint-Girons, B. Vilquin and G. Hollinger
Int. J. Nanotechnol., **7** 320 (2010). (Invited)
https://doi.org/10.1504/IJNT.2010.031723

65. Partial arsenic pressure and crystal orientation during the molecular beam epitaxy of GaAs on $SrTiO_3$(001)
J. Cheng, A. Chettaoui, J. Penuelas, B. Gobaut, P. Regreny, A. Benamrouche, Y. Robach, G. Hollinger, G. Saint-Girons
J. Appl. Phys. **107**, 094902, (2010).
https://doi.org/10.1063/1.3407520

66. Epitaxial growth of germanium on silicon using a Gd_2O_3/Si(111) cristalline template
G. Niu, L. Largeau, G. Saint-Girons, B. Vilquin, J. Cheng, O. Mauguin and G. Hollinger
J. Vac. Sci. Technol A. **28**, 1187, (2010).
https://doi.org/10.1116/1.3478301

67. High oxidation state at the epitaxial interface of gamma-Al_2O_3 thin films grown on Si(111) and Si(001).
M. El-Kazzi, C. Merckling, G. Saint-Girons, G. Grenet, M. Silly, F. Sirotti and G. Hollinger
Appl. Phys. Lett. **97**, 151902, (2010).
https://doi.org/10.1063/1.3499280

68. Direct growth of InAsP/InP quantum well heterostructures on Si using cristalline $SrTiO_3$/Si templates
B. Gobaut, J. Penuelas, J. Cheng, A. Chettaoui, L. Largeau, G. Hollinger and G. Saint-Girons
Appl. Phys. Lett. **97**, 201908, (2010).
https://doi.org/10.1063/1.3520143

69. Evidence for the formation of two phases during the growth of $SrTiO_3$ on silicon
G. Niu, J. Penuelas, L. Largeau, B. Vilquin, J.L. Maurice, C. Botella, G. Hollinger and G. Saint-Girons
Phys. Rev. B **83**, 054105, (2011).
https://doi.org/10.1103/PhysRevB.83.054105

70. Molecular beam epitaxial growth of $BaTiO_3$ single crystal on Ge-on-Si(001) substrates
C. Merckling, G. Saint-Girons, C. Botella, G. Hollinger, M. Heyns, J. Dekoster and M. Caymax
Appl. Phys. Lett. **98**, 092901, (2011).
https://doi.org/10.1063/1.3558997

71. Direct epitaxial growth on InP based heterostructures on $SrTiO_3$/Si(001) crystalline templates
G. Saint-Girons, J. Cheng, A. Chettaoui, J. Penuelas, B. Gobaut, P. Regreny, L. Largeau, G. Patriarche, C. Botella and G. Hollinger
Microelec. Eng. **88**, 469, (2011).
https://doi.org/10.1016/j.mee.2010.10.034

72. Crystallographic orientation transition of InP islands on $SrTiO_3$ substrates with the growth temperature
A. Chettaoui, J. Penuelas, B. Gobaut, J. Cheng, A. Benamrouche, Y. Robach, G. Hollinger and G. Saint-Girons
Surf. Sci. 605, **912**, (2011).
https://doi.org/10.1016/j.susc.2011.02.003

73. Direct epitaxial growth of $SrTiO_3$ on Si(001) : interface, crystallization, and IR evidence for phase transition
G. Niu, W.W. Peng, G. Saint-Girons, J. Penuelas, P. Roy, J.B. Brubach, J.L. Maurice, G. Hollinger and B. Vilquin
Thin Solid Films **519**, 5722, (2011).
https://doi.org/10.1016/j.tsf.2010.12.208

74. Epitaxy of $BaTiO_3$ thin films on Si(001) using a $SrTiO_3$ buffer layer for non-volatile memory application
G. Niu, S. Yin, G. Saint-Girons, B. Gautier, P. Lecoeur, V. Pillard, G. Hollinger and B. Vilquin
Microelec. Eng. **88**, 1232, (2011).
https://doi.org/10.1016/j.mee.2011.03.028

75. Heteroepitaxy of $SrTiO_3$ thin films on Si(001) using different growth strategies : toward substratelike quality
G. Niu, B. Vilquin, J. Penuelas, C. Botella, G. Hollinger and G. Saint-Girons
J. Vac. Sci. Technol. B **29**, 041207, (2011).
https://doi.org/10.1116/1.3609813

76. Molecular beam epitaxy of $BaTiO_3$ thin films and crucial impact of oxygen content conditions on the electrical characteristics
G. Niu, B. Gautier, Y. Shi, G. Saint-Girons, P. Lecoeur, V. Pillard, G. Hollinger and B. Vilquin
Thin Solid Films **520**, 4595, (2012).
https://doi.org/10.1016/j.tsf.2011.10.182

77. Ge/$SrTiO_3$(001) interface probed by soft x-ray synchrotron radiation time-resolved photoemission
M. El-Kazzi, B. Gobaut, J. Penuelas, G. Grenet, M.G. Silly, F. Sirotti and G. Saint-Girons
Phys. Rev. B **85**, 075317, (2012).
https://doi.org/10.1103/PhysRevB.85.075317

78. Growth of vertical and defect free nanowires on $SrTiO_3$(001) substrate and comparison with growth on silicon
K. Naji, H. Dumont, G. Saint-Girons, J. Penuelas, G. Patriarche, M. Hocevar, V. Zwiller and M. Gendry
J. Cryst. Growth **343**, 101, (2012).
https://doi.org/10.1016/j.jcrysgro.2011.12.062

79. Morphological and structural properties of InP/Gd_2O_3 nanowires grown by molecular beam epitaxy on silicon substrate
J. Penuelas, X. Lu, N. Blanchard, G. Saint-Girons, B. Vilquin, P. Crémillieu, R. Mazurczyk and M. Gendry
J. Cryst. Growth **347**, 49, (2012).
https://doi.org/10.1016/j.jcrysgro.2012.03.003

80. Ge/$SrTiO_3$(001) : correlation between interface chemistry and crystal orientation
B. Gobaut, J. Penuelas, G. Grenet, D. Ferrah, A. Benamrouche, A. Chettaoui, Y. Robach, C. Botella, M. El-Kazzi, M.G. Silly, F. Sirotti and G. Saint-Girons
J. Appl. Phys. **112**, 093508, (2012).
https://doi.org/10.1063/1.4764510

81. $LaAlO_3$/Si capacitors : comparison of different molecular beam deposition conditions and their impact on electrical properties
S. Pelloquin, G. Saint-Girons, N. Baboux, D. Albertini, W. Ourani, J. Penuelas, G. Grenet, C. Plossu and G. Hollinger
J. Appl. Phys. **113**, 034106, (2013).
https://doi.org/10.1063/1.4769890

82. Influence of the catalyst droplet diameter on the growth direction of InP nanowires on Si(001) substrates
K. Naji, G. Saint-Girons, J. Penuelas, G. Patriarche, L. Largeau, H. Dumont, P. Rojo-Romeo and M. Gendry
Appl. Phys. Lett. **102**, 243113, (2013).
https://doi.org/10.1063/1.4811782

83. Interface accommodation mechanism for weakly interacting epitaxial systems
A. Danescu, B. Gobaut, J. Penuelas, G. Grenet, V. Favre-Nicolin, N. Blanc, T. Zhou, G; Renaud and G. Saint-Girons
Appl. Phys. Lett. **103**, 021602, (2013).
https://doi.org/10.1063/1.4813548

84. Ferroelectric Pb(Zr,Ti)O3 epitaxial layers on GaAs
L. Louahadj, D. Le Bourdais, L. Largeau, G. Agnus, L. Mazet, R. Bachelet, P. Regreny, D. Albertini, V. Pillard, C. Dubourdieu, B. Gautier; P. Lecoeur and G. Saint-Girons
Appl. Phys. Lett. **103**, 212901, (2013).
https://doi.org/10.1063/1.4831738

85. Chemistry and structure of $BaTiO_3$ ultra-thin films grown by different O_2 plasma power
J.L. Wang, J. Leroy, G. Niu, G. Saint-Girons, B. Gautier, B. Vilquin and N. Barrett
Chem. Phys. Lett. **592**, 206, (2014).
https://doi.org/10.1016/j.cplett.2013.12.030

86. Phase transitions in [001]-oriented morphotropic $PbZr_{0.52}Ti_{0.48}O_3$ thin film deposited onto $SrTiO_3$-buffered Si substrate
Y. Shi, S. Cueff, G. Niu, G. Le Rhun, B. Vilquin, G. Saint Girons,, R. Bachelet, B. Gautier, Y. Robach, P. Gemeiner, N. Guiblin, E. Defay and B. Dkhil
J. Appl. Phys. **115**, 214108, (2014).
https://doi.org/10.1063/1.4881818

87. Electromechanical response of amorphous $LaAlO_3$ thin film probed by scanning probe microscopies
A.S. Borowiak, N. Baboux, D. Albertini, B. Vilquin, G. Saint Girons, S. Pelloquin and B. Gautier
Appl. Phys. Lett. **105**, 012906, (2014).
https://doi.org/10.1063/1.4889853

88. Molecular beam epitaxy of $SrTiO_3$ on GaAs (001): GaAs surface treatment and structural characterization of the oxide layer
L. Louahadj, R. Bachelet, P. Regreny, L. Largeau, C. Dubourdieu and G. Saint-Girons
Thin Solid Films **563**, 2, (2014).
https://doi.org/10.1016/j.tsf.2014.02.062

89. Growth of Ge islands on $SrTiO_3$(001) 2×1 reconstructed surface: Epitaxial relationship and effect of the temperature
B. Gobaut, J Penuelas, A Benamrouche, Y Robach, N Blanc, V Favre-Nicolin, G Renaud, L Largeau and G Saint-Girons
Surf. Sci. **624**, 130, (2014).
https://doi.org/10.1016/j.susc.2014.02.009

90. Functional spinel oxide heterostructures on silicon
R. Bachelet, P. de Coux, B. Warot-Fonrose, V. Skumryev, G. Niu, B. Vilquin, G. Saint-Girons, F. Sanchez
CrystEngComm **16**, 10741, (2014).
10.1039/C4CE01817F

91. Structural study and ferroelectricity of epitaxial $BaTiO_3$ films on silicon grown by molecular beam epitaxy
L. Mazet, R. Bachelet L. Louahadj D.Albertini, B. Gautier, S. Schamm Chardon G. Saint-Girons and C. Dubourdieu
J. Appl. Phys. **116**, 214102, (2014).
https://doi.org/10.1063/1.4902165

92. Epitaxial Growth of Ferroelectric $Pb(Zr,Ti)O_3$ Layers on GaAs
B. Meunier, L. Louahadj, D. Le Bourdais, L. Largeau, G. Agnus, P. Lecoeur, V. Pillard, L. Mazet, R. Bachelet, P. Regreny, C. Botella, G. Grenet, D. Albertini, C. Dubourdieu, B. Gautier and G. Saint-Girons
MRS Proceedings **1675**, mrss14-1675-k07-50, (2014).

93. Integration of functional complex oxide nanomaterials on silicon
J Vila-fungueiriño, R. Bachelet, G. Saint-Girons, M. Gendry, M. Gich, J. Gazquez, E. Ferain, F. Rivadulla, J. Rodriguez-Carvajal, N. Mestres and A. Carretero-Genevrier
Frontiers in Physics **3**, 38, (2015).
https://doi.org/10.3389/fphy.2015.00038

94. X-ray photoelectron spectroscopy and diffraction investigation of a metal–oxide-semiconductor heterostructure: Pt/Gd_2O_3/Si (111)
D. Ferrah, M. El Kazzi, G. Niu, C. Botella, J. Penuelas, Y. Robach, L. Louahadj, R. Bachelet, L. Largeau, G. Saint-Girons, Q. Liu, B. Vilquin and G. Grenet
J. Cryst. Growth **416**, 118, (2015).
https://doi.org/10.1016/j.jcrysgro.2015.02.001

95. Epitaxial manganite freestanding bridges for low power pressure sensors
D. Le Bourdais, G. Agnus, T. Maroutian, V. Pillard, P. Aubert, R. Bachelet, G. Saint-Girons, B. Vilquin, E. Lefeuvre and P. Lecoeur
J. Appl. Phys. **118**, 124509, (2015).
https://doi.org/10.1063/1.4931885

96. Texture of Ge on $SrTiO_3$ (001) substrates: Evidence for in-plane axiotaxy
A. Danescu, J. Penuelas, B. Gobaut and G. Saint-Girons
Surf. Sci. **644**, 13, (2016).
https://doi.org/10.1016/j.susc.2015.08.035

97. The role of Titanium at the $SrTiO_3$/GaAs epitaxial interface
B. Meunier, R. Bachelet, G. Grenet, C. Botella, P. Regreny, J. Penuelas and G. Saint-Girons
J. Cryst. Growth **433**, 139, (2016).
https://doi.org/10.1016/j.jcrysgro.2015.10.013

98. Dramatic effect of thermal expansion mismatch on the structural, dielectric, ferroelectric and pyroelectric properties of low-cost epitaxial PZT films on $SrTiO_3$ and Si
R Moalla, B Vilquin, G Saint-Girons, G Sebald, N Baboux, R Bachelet
CrystEngComm **18**, 1887, (2016).
10.1039/C5CE02311D

99. GaAs nanowires with oxidation-proof arsenic capping for the growth of an epitaxial shell
X Guan, J. Becdelievre, A Benali, C Botella, G Grenet, P Regreny, N Chauvin, NP Blanchard, X Jaurand, G Saint-Girons, R Bachelet, M Gendry, J Penuelas
Nanoscale **8**, 15637, (2016)
10.1039/C6NR04817J

100. Chemical reactivity between sol–gel deposited Pb(Zr,Ti)O_3 layers and their GaAs substrates
B. Meunier, L Largeau, P Regreny, J Penuelas, R Bachelet, B Vilquin, B Wague, G Saint-Girons
CrystEngComm **18**, 7494, (2016).
10.1039/C6CE01276K

101. Sol–gel deposition of Pb(Zr,Ti)O_3 on GaAs/InGaAs quantum well heterostructure via $SrTiO_3$ templates: Stability of the semiconductor during oxide growth
B. Meunier, L Largeau, P Regreny, R Bachelet, B Vilquin, J Penuelas, G Saint-Girons
Thin Solid Films **617**, 67, (2016)
https://doi.org/10.1016/j.tsf.2016.01.037

102. Low-loss and compact silicon rib waveguide bends
A. Brimont, X. Hu, S. Cueff, P. Rojo Romeo, G. Saint Girons, A. Griol, A. Zanzi, P. Sanchis, R. Orobtchouk
IEEE Photon. Technol. Lett. **28**, 299, (2016).
10.1109/LPT.2015.2495230

103. GaAs Core/$SrTiO_3$ Shell Nanowires Grown by Molecular Beam Epitaxy
X. Guan, J. Becdelievre, B. Meunier, A., G. Saint-Girons, R. Bachelet, P. Regreny, C. Botella, G. Grenet, N.P. Blanchard, X. Jaurand, M.G. Silly, F. Sirotti, N. Chauvin, M. Gendry, J. Penuelas
NanoLetters **16**, 2393, (2016).
DOI: 10.1021/acs.nanolett.5b05182

104. Electro-Optical Modulation Based on Pockels Effect in $BaTiO_3$ With a Multi-Domain Structure
P. Castera, A.M. Gutierrez, D. Tulli, S. Cueff, R. Orobtchouk, P. Rojo Romeo, G. Saint-Girons, P. Sanchis
IEEE Photon. Technol. Lett. **28**, 990, (2016).
10.1109/LPT.2016.2522509

105. Epitaxy of iridium on $SrTiO_3$/Si(001): A promising scalable substrate for diamond heteroepitaxy
K.H. Lee, S. Saada, J.C. Arnault, R. Moalla, G. Saint-Girons, R. Bachelet, H. Bensalah, I. Stenger, J. Barjon, A. Tallaire, J. Achard
Diamond and related materials **66**, 67, (2016).
https://doi.org/10.1016/j.diamond.2016.03.018

106. Epitaxy of $SrTiO_3$ on silicon: the knitting machine strategy
G. Saint-Girons, R. Bachelet, R. Moalla, B. Meunier, L. Louahadj, B. Canut, A. Carretero-Genevrier, J. Gazquez, P. Regreny, C. Botella, J. Penuelas, M.G. Silly, F. Sirotti, G. Grenet
Chem. Mater. **28**, 5347, (2016).
https://doi.org/10.1021/acs.chemmater.6b01260

107. High ferroelectric polarization in c-oriented BaTiO3 epitaxial thin films on $SrTiO_3$/Si(001)
M. Scigaj, C.H. Chao, J. Gazquez, I. Fina, R. Moalla, G. Saint-Girons, M.F. Chisholm, G. Herranz, J. Fontcuberta, R. Bachelet, F. Sanchez
Appl. Phys. Lett. **109**, 122903, (2016).
https://doi.org/10.1063/1.4962836

108. Electric and mechanical switching of ferroelectric and resistive states in semiconducting $BaTiO_{3-\delta}$ films on silicon
A. Gomez, J.M. Vila-Fungueirino, R. Moalla, G. Saint-Girons, J. Gazquez, M. Varela, R. Bachelet, M. Gich, F. Rivadulla, A. Carretero-Genevrier
Small **13**, 1701614, (2017).
https://doi.org/10.1002/smll.201701614

109. Thermoelectric La-doped SrTiO3 epitaxial layers with single-crystal qualtiy : from nano to micrometers
M. Apreutesei, R. Debord, M. Bouras, P. Regreny, C. Botella, A. benamrouche, A. Carretero-genevrier, J. Gazquez, G. Grenet, S. Pailhès, G. Saint-Girons, R. Bachelet
Sci. Technol. Adv. Mater. **18**, 430, (2017).
https://doi.org/10.1080/14686996.2017.1336055

110. Huge gain in pyroelectric energy conversion though epitaxy for integrated self-powered nanodevices
R. Moalla, B. Vilquin, G. Saint-Girons, G. Le Rhun, E. Defaÿ, G. Sebald, N. Baboux, R. Bachelet
Nano Energy **41**, 43, (2017).
https://doi.org/10.1016/j.nanoen.2017.09.001

111. Large anisotropy of ferroelectric and pyroelectric properties in heteroepitaxial oxide layers
R. Moalla S. Cueff, J. Penuelas, B. Vilquin, G. Saint-Girons, N. Baboux and R. Bachelet
Nature Scientific Reports **8**, 9777, (2018).
https://doi.org/10.1038/s41598-018-22349-y

112. Epitaxial $La_{0.7}Sr_{0.3}MnO_3$ thin films on silicon with excellent magnetic and electric properties by combining physical and chemical methods
J.M. Vila-Fungueiriño, J. Gázquez, C. Magén, G. Saint-Girons, R. Bachelet and A. Carretero-Genevrier
Science and technology of advanced materials **19**, 702, (2018)
https://doi.org/10.1080/14686996.2018.1520590

113. Enhanced ferroelectricity in epitaxial $Hf_{0.5}Zr_{0.5}O_2$ thin films integrated with Si(001) using $SrTiO_3$ templates
J. Lyu, I. Fina, R. Bachelet, G. Saint-Girons, S. Estandıa, J. Gazquez, J. Fontcuberta, and F. Sanchez
Appl. Phys. Lett. **114**, 222901, (2019)
https://doi.org/10.1063/1.5096002

114. Structural properties of strained epitaxial $La_{1+\delta}CrO_3$ thin films
Dong Han, Mohamed Bouras, Claude Botella, Aziz Benamrouche, Bruno Canut, Geneviève Grenet, Guillaume Saint-Girons, and Romain Bachelet
J. Vac. Sci. Technol. A **37**, 021512, (2019)
https://doi.org/10.1116/1.5082185

115. Perovskite-oxide based hyperbolic metamaterials
M. Bouras, D. Han, S. Cueff, R. Bachelet, G. Saint-Girons
ACS Photonics **6**, 1755, (2019)
https://doi.org/10.1021/acsphotonics.9b00485

116. Poisson ratio and bulk lattice constant of $(Sr_{0.25}La_{0.75})CrO_3$ from strained epitaxial thin films
D. Han, M. Bouras, C. Botella, A. Benamrouche, B. Canut, G. Grenet, G. Saint-Girons and R. Bachelet
J. Appl. Phys. **126**, 085304, (2019)
https://doi.org/10.1063/1.5101049

117. Structural studies of epitaxial BaTiO3 thin films on silicon
B. Wague, J.B. Brubach, G. Niu; G. Dong, L. Dai, P. Roy, G. Saint-Girons, P. Rojo-Romeo, Y. Robach, B. Vilquin
Thin Solid Films **693**, 137636, (2020)
https://doi.org/10.1016/j.tsf.2019.137636

118. Diamond on $Ir/SrTiO_3/Si$ (001): From sequential material characterizations to fabrication of lateral Schottky diodes
J.C. Arnault, K.H. Lee, J. Delchevalrie, J. Penuelas, L. Mehmel, O. Brinza, S. Temgoua, I. Stenger, J. Letellier, G. Saint-Girons, R. Bachelet, R. Issaoui, A. Tallaire, J. Achard, J. Barjon, D. Eon, C. Ricolleau, S. Saada
Diamond and Related Materials **105**, 107768, (2020)
https://doi.org/10.1016/j.diamond.2020.107768

119. Epitaxial Ferroelectric La-doped $Hf_{0.5}Zr_{0.5}O_2$ Thin Films
T. Song, R. Bachelet, G. Saint-Girons, R. Solanas, I. Fina, and F. Sanchez
ACS Applied Electronic Materials **2** ,3221, (2020)
https://pubs.acs.org/doi/10.1021/acsaelm.0c00560

120. Giant tuning of electronic and thermoelectric properties by epitaxial strain in p-type Sr-doped $LaCrO_3$ transparent thin films
D. Han, R. Moalla, I. Fina, V. Giordano, M. d'Esperonnat, C. Botella, G. Grenet, R. Debord, S. Pailhes, G. Saint-Girons and R. Bachelet
ACS Applied Electronic Materials **3**, 3461, (2021)
https://doi.org/10.1021/acsaelm.1c00425

121. Spectroscopic ellipsometry: a sensitive tool to monitor domains formation during the bias enhanced nucleation of heteroepitaxial diamond
J. Delchevalrie, S. Saada, R. Bachelet, G. Saint-Girons and J.C.Arnault
Diamond and Related Materials **112**, 108246, (2021)
https://doi.org/10.1016/j.diamond.2021.108246

122. Sensitive RHEED signature of Ti-excess enabling enhanced cationic composition control during the molecular beam epitaxy of SrTiO3 based solid solutions
M. Razaghi Pey Ghaleh, M. d'Esperonnat, C. Botella, S. Cueff, R. Bachelet and G. Saint-Girons
CrystEngComm **23**, 2269, (2021).
https://doi.org/10.1039/D1CE00013F

123. Stabilization of the ferroelectric phase in epitaxial $Hf_{1-x}Zr_xO_2$ enabling coexistence of ferroelectric and enhanced piezoelectric properties
T. Song, H. Tan, N. Dix, R. Moalla, J. Lyu, G. Saint-Girons, R. Bachelet, F. Sánchez, and I. Fina
ACS Applied Electronic Materials **3**, 2106, (2021)
https://doi.org/10.1021/acsaelm.1c00122

124. Epitaxial Zn3N2 thin films by molecular beam epitaxy: Structural, electrical, and optical properties
P. John, M. Al Khalfioui, C. deparis, A. Welk, C. Licthensteiger, R. Bachelet, G. Saint-Girons, H. Rotella, M. Hugues, M. Grundmann and J. Zuniga-Perez
J. Appl. Phys. **130**, 065104 (2021)
https://doi.org/10.1063/5.0057307

125. Thickness effect on ferroelectric properties of La-doped HfO2 epitaxial films down to 4.5 nm
T. Song, R. Bachelet, G. Saint-Girons, N. Dix, I. Fina, and F. Sánchez
J. Mater. Chem. C **9**, 12224 (2021)
https://doi.org/10.1039/D1TC02512K

126. Impact of La Concentration on Ferroelectricity of La-Doped HfO2 Epitaxial Thin Films
T. Song, H. Tan, R. Bachelet, G. Saint-Girons, I. Fina, and F. Sánchez
ACS Appl. Electron. Mater. **3**, 4809 (2021)
https://doi.org/10.1021/acsaelm.1c00672

127. Assessing the insulating properties of an ultrathin $SrTiO_3$ shell grown around GaAs nanowires with molecular beam epitaxy
N. Peric, T. Dursap, J. Becdelievre, M. Berthe, A. Addad; P. Rojo-Romeo, R. Bachelet, G. Saint-Girons, O. Lancry, S. Legendre, L. Biadala, J. Penuelas, B. Grandidier
Nanotechnology **33**, 375702, (2022)
https://doi.org/10.1088/1361-6528/ac7576

128. Tunable optical anisotropy in epitaxial phase-change VO_2 thin films
J. John, A. Slassi, J. Sun, Y. Sun, R. Bachelet, J. Pénuelas, G.Saint-Girons, R. Orobtchouk, S. Ramanathan, A. Calzolari, S. Cueff
Published online, Nanophotonics **11**, 3913 (2022)
https://doi.org/10.1515/nanoph-2022-0153

129. Integration of $Li_4Ti_5O_{12}$ Crystalline Films on Silicon towards High-Rate Performance Lithionic Devices
S.D. Lacey, E. Gilardi, E. Müller, C. Merckling, G. Saint-Girons, C. Botella, R. Bachelet, D. Pergolesi, M. El Kazzi
ACS Appl. Mater. Interfaces **15**, 1535, (2023)
https://doi.org/10.1021/acsami.2c17073

130. Ferroelectric $Hf_{0.5}Zr_{0.5}O_2$ films with improved endurance by low temperature epitaxial growth on seed layers
T. Song, R. Bachelet, G. Saint-Girons, I. Fina, F. Sánchez
Nanoscale **15**, 5293, (2023)
https://doi.org/10.1039/D2NR05935E

131. Strain generated by the stacking faults in epitaxial SrO(SrTiO3)N Ruddlesden–Popper structures
G. Saint-Girons, C. Furgeaud, L. Largeau, A. Danescu, R. Bachelet and M. Bouras
J. Appl. Cryst. **56**, 1426, (2023)
https://doi.org/10.1107/S1600576723006945
https://hal.science/hal-04220588

132. Programming multilevel crystallization states in phase-change-material thin films
A. Taute, S. Al-Jibouri, C. Laprais, S. Monfray, J. Lumeau, A. Moreau, X. Letartre, N. Baboux, G. Saint-Girons, L. Berguiga and S. Cueff
Optical Material Express **13**, 3113, (2023)
https://doi.org/10.1364/OME.499809
https://hal.science/hal-04243325

133. Integration of epitaxial $LiNbO_3$ thin films with silicon technology
A. Bartasyte, S. Oliveri, S. Boujnah, S. Margueron, R. Bachelet, G. Saint-Girons, D. Albertini, B. Gautier, P. Boulet, E. Blanquet, V. Astié, and J.-M. Decams
Nanotechnology **35**, 175601, (2024)
https://doi.org/10.1088/1361-6528/ad1b98
https://hal.science/hal-04396804

134. Sb_2S_3 as a low-loss phase-change material for mid-IR photonics
A. Biegański, M. Perestjuk, R. Armand, A. Della Torre, C. Laprais, G. Saint-Girons, V. Reboud, J.-M. Hartmann, J.-H. Tortai, A. Moreau, J. Lumeau, T. Nguyen, A. Mitchell, C. Monat, S. Cueff and C. Grillet
Optical Materials Express **14**, 862 (2024)
https://doi.org/10.1364/OME.511923
https://hal.science/hal-04625953

135. Absorption line broadening in atomic beams produced in a molecular beam epitaxy environment
R. Rousseau, J. Morville, C. Botella and G. Saint-Girons
Optics Express **23**, 40202 (2024)
https://doi.org/10.1364/OE.536538

136. Reversible Single-Pulse Laser-Induced Phase Change of Sb2S3 Thin Films: Multi-Physics Modeling and Experimental Demonstrations
C. Laprais, C. Zrounba, J. Bouvier, N. Blanchard, M. Bugnet, A. Gassenq, Y. Gutiérrez, S. Vazquez-Miranda, S. Espinoza, P. Thiesen, R. Bourrellier, A. Benamrouche, N. Baboux, G. Saint-Girons, L. Berguiga, S. Cueff
Adv. Optical Mater. 2024, 2401214
https://doi.org/10.1002/adom.202401214
https://hal.science/hal-04711821

137. Preferential orientations of FeRh nanomagnets deposited on a BaTiO3 epitaxial thin film
A. Reyes, G. Herrera, P. Capiod, D. Le Roy, V. Dupuis, I. Cañero-Infante, G. Saint-Girons, R. Bachelet, A. Resta, P. Ohresser, L. Martinelli, X. Weng, G. Renaud, and F. Tournus
Phys. Rev. B **109**, 245510, (2024)
https://doi.org/10.1103/PhysRevB.109.245410
https://hal.science/hal-04621770

138. Broadband cavity enhanced optical flux monitoring
R. Rousseau, C. Botella., J. Morville, M. Bounab, L. Berguiga, C. Furgeaud, R. Bachelet and G. Saint-Girons
J. Appl. Phys. **136**, 185301 (2024)
doi: 10.1063/5.023543

139. $Sr_{1+\delta}CrO_{2.8}$ epitaxial thin films
D. Han, B. Canut, G. Saint-Girons and R. Bachelet
Cryst. Growth & Design **25**, 2809 (2025)

140. Spatially-Controlled Planar Czochralski Growth of Low-Loss Phase Change Materials for Programmable Photonics
F. Bentata, A. Taute, C. Laprais, R. Orobtchouk, E. Kempf, A. Gassenq, Y. Pipon, M. Calvo, S. Monfray, G. Saint-Girons, N. Baboux, H.S. Nguyen, X. Letartre, L. Berguiga, P. Genevet, S. Cueff
Adv. Func. Mat., under revision
https://arxiv.org/html/2504.16603v1

141. Strong and engineerable optical anisotropy in easily integrable epitaxial $SrO(SrTiO_3)_N$ Ruddlesden–Popper thin layers
M.O. Bounab, C. Furgeaud, S. Cueff, L. Berguiga, R. Bachelet, M. Bouras, L. Pedesseau, J. Even, L. Largeau, G. Saint-Girons
Adv. Opt. Mat., under revision

Conférences invitées

1. Croissance de boîtes quantiques d'In(Ga)As/GaAs par EPVOM sur pseudo-substrat de Ge/Si (100) pour la réalisation de composants émettant à 1,3 µm
I. Sagnes, D. Bensahel, S. Bouchoule, Y. Campidelli, Y. Chriqui, O. Kermarrec, J-M. Moison, G. Patriarche, G. Saint-Girons
Journées IV-IV – grenoble 13-15 Janvier 2003.

2. InGaAs/GaAs sources monolithically grown by MOVPE on Ge/Si substrates I. Sagnes, Y. Chriqui, G. Saint-Girons, S. Bouchoule, D. Bensahel, O. Kermarrec, G. Isella , H. von Kaenel
2nd conference on Group IV Photonics, september 2005, Antwerpen (Belgium).

3. Non-conventional epitaxial relationship between InP nanocristallites and $SrTiO_3$
G. Saint-Girons
2nd French-Korean LIA workshop on Photonics and Nanostructures, june 14-15 2007, Ecully (France).

4. Monolithic integration of III-V and IV-IV semiconductors on Si using crystalline oxide buffers
G. Saint-Girons
Lyon Tohoku workshop, february 8-9 2007, Lyon (France).

5. Molecular Beam Epitaxy of crystalline oxides on Si for C-MOS and for the monolithic integration of semiconductors on Silicon
G. Saint-Girons, C. Merckling, M. El-Kazzi, L. Becerra, P. Regreny, G. Patriarche, L. Largeau, V. Favre-Nicollin, G. Hollinger.
Conference of the german society of physics, february 27-29 2008 – Berlin (Germany).

6. Epitaxie d'oxydes cristallins sur Si pour des applications C-MOS et pour l'intégration monolithique de semiconducteurs
G. Saint-Girons
International Workshop on functional oxides, march 16-19 (2008) – Autrans (France).

7. Compliance spontanée à l'interface semiconducteur/oxyde crystallin : vers l'intégration d'hétérostructures III-V sur Silicium
G. Saint-Girons, J. Cheng, C. Priester, P. Regreny, G. Patriarche, L. Largeau, V. Favre-Nicolin, M. Gendry, G. Grenet, G. Hollinger.
JNMO 2008, June 3-6 2008 – Oléron (France).

8. Monolithic integration of III-V and Ge on Si using compliant epitaxial oxide buffers
G. Saint-Girons, J. Cheng, P. Regreny, G. Patriarche, L. Largeau, P. Rojo-Romeo, C. Seassal, G. Niu, B. Vilquin and G. Hollinger
Journées Nationales des technologies émergentes JNTE, 19-21 November 2008, Toulouse (France).

9. Integration of III-V on Si via the growth of oxides
G. Saint-Girons, J. Cheng, P. Regreny, G. Patriarche, L. Largeau, P. Rojo-Romeo, C. Seassal, G. Niu, B. Vilquin and G. Hollinger
EUROMBE 2009 conference, march 8-11, (2009) – Zakopane (Poland).
10. Oxydes : croissance et contraintes

G. Saint-Girons
Ecole thématique “mécanique des nano-objets », march 14-19, (2010) – Autrans (France).

11. Epitaxial systems conbining oxides and semiconductors
G. Saint-Girons, B. Vilquin, J. Cheng, G. Niu, B. Gobaut, A. Chettaoui, Y. Shi, J. Penuelas, P. Regreny, M. Gendry, L. Largeau, G. Patriarche; G. Grenet, G. Hollinger
Transalp’Nano 2010 conference, june 3-5, (2010) – Como (Italy).

12. Epitaxial systems conbining oxides and semiconductors
G. Saint-Girons, B. Vilquin
MBE 2010 conference, august 22-27, (2010) – Berlin (Germany).

13. Epitaxial growth of cristalline oxides for nanoelectronics
G. Saint-Girons, G. Niu, Y. Shi, B. Vilquin, J. Penuelas, G. Grenet and G. Hollinger
International conference on materials, energy and environment, May 10-11 2012, Toledo (USA).

14. Epitaxy of functional heterostructures combining oxides and semiconductors, and application perspectives for the fabrication of novel integrated photonic devices
G. Saint-Girons
2012 EMN meeting, April 16-20, 2012, Orlando (USA).

15. Integration of functional oxides with semiconductors
R. Bachelet, G. Niu, L. Louahadj, P. Regreny, B. Vilquin, P. de Coux, B. Warot-Fonrose, I. Fina, V. Skumryev, J. Fontcuberta, F. Sanchez, G. Saint-Girons
2012 collaborative conference on crystal growth, Dec 11-14(2012), Orlando (USA).

16. Functional oxide nanostructures for energy harvesting
R. Bachelet, N. Barrett, A. Borowiak, D. Cazoir, F. Gaillard, B. Gautier, J. Leroy, Q. Liu, L.Louahadj, C. Malhaire, O. Marconot, S. Nassreddine, G. Niu, J. Penuelas, J. Pezard, L. Piccolo, M.Piquemal, E. Puzenat, Y. Robach, P. Rojo-Romeo, G. Saint-Girons, B. Vilquin, J. Wang
2012 collaborative conference on crystal growth, Dec 11-14(2012), Orlando (USA).

17. Weakly interacting epitaxial systems : the semiconductor/$SrTiO_3$ case
G. Saint-Girons, A. Danescu, B. Gobaut, J. Penuelas, G. Grenet, G. Renaud, N. Blanc, V. Favre-Nicollin, M. El-Kazzi, F. Sirotti, M. Silly
43rd IEEE SISC conference, December 6-8, 2012, San Diego (USA).

18. Systèmes épitaxiés faiblement liés, le cas semiconducteur/$SrTiO_3$
G. Saint-Girons, A. Danescu, B. Gobaut, J. Penuelas, G. Grenet, G. Renaud, N. Blanc, V. Favre-Nicollin, M. El-Kazzi, F. Sirotti, M. Silly
Journées surfaces et interfaces 2013, 30/01-01/12 2013, Orléans (France).

19. Integration of functional oxides with semiconductors
R. Bachelet, G. Niu, S. Yin, L. Louahadj, L. Mazet, I. Fina, V. Skumryev, P. de Coux, B. Warot-Fonrose, L. Largeau, P. Regreny, C. Dubourdieu, B. Vilquin, G. Le Rhun, E. Defaÿ, G. Agnus, P. Lecoeur, J. Fontcuberta, F. Sanchez, G. Saint-Girons
Colloque annuel du GDR pulse, 3-5 juillet 2013, Aix en Provence (France).
20. Silicon CMOS compatible transition metal oxide technology for boosting highly

integrated photonic devices with disruptive performance.
P. Sanchis, L. Sánchez, P. Castera, A. Rosa Escutia, A. M. Gutierrez, A. Brimont, G. Saint-Girons, R. Orobtchouk, S. Cueff, P. Rojo-Romeo, R. Bachelet, P. Regreny, B. Vilquin, C. Dubourdieu, X. Letartre, G. Grenet, J. Penuelas, X. Hu, L. Louahadj, J.-P. Locquet, L. Zimmermann, C. Marchiori, S. Abel, J. Fompeyrine, A. Håkansson
16th International Conference on Transparent Optical Networks - ICTON (July 2014). Graz (Austria).

21. Monolithic integration of epitaxial BaTiO3 on Si and SiGe for ferroelectric devices
L. Mazet, R. Bachelet, G. Saint-Girons, D. Albertini, B. Gautier, M. Frank, J. Jordan-Sweet, I. Lauer, V. Narayanan, M. Hytch, S. Schamm-Chardon, C. Dubourdieu
61st AVS International Symposium, nov 9-14 2014, Baltimore (USA).

22. Integration of functional oxides on silicon for nanoelectronics and energy
R. Bachelet, L. Louahadj, L. Mazet, R. Moalla, G. Niu, P. Regreny, B. Vilquin, C. Dubourdieu, J. Fontcuberta, F. Sanchez, G. Saint-Girons
International Conference on Materials and Characterization Techniques (ICMCT), March 10 – 12, 2014, Chennai, (India).

23. Epitaxy of ferroelectric complex oxides on semiconductors for field-effect devices
L. Mazet, R. Bachelet, G. Saint-Girons, L. Louahadj, D. Albertini, B. Gautier, J. Jordan-Sweet, M. Frank, V. Narayanan, M. Hytch, S. Schamm-Chardon, C. Dubourdieu
10th International Conference on Physics of Advanced Materials, sept 22-28 2014, Iasi (Romania).

24. Catalyse par le Sr de de la cristallisation de $SrTiO_3$ lors des premiers stades de sa croissance sur Si
G. Saint-Girons, R. Bachelet, G. Grenet, J. Penuelas, L. Louahadj, A. Carretero-Genevrier, B. Canut, M. Silly, F. Sirotti
Colloque annuel du GDR PULSE, 27-29 octobre 2014, Toulouse (France).

25. Heterostructures combining functional oxides and semiconductors for integrated photonics
G. Saint-Girons, S. Cueff, B. Meunier, X. Hu, L. Louahadj, L. Mazet, R. Orobtchouk, P. Rojo-Romeo, R. Bachelet, B. Vilquin, P. Regreny, N. Chauvin, G. Grenet, J. Penuelas, A. Danescu, C. Dubourdieu, X. Letartre, G. Renaud, V. Favre-Nicolin, N. Blanc, T. Zhou, M. Silly, F. Sirotti, L. Largeau, G. Agnus, V. Pillard, D. Le Bourdais, P. Lecoeur
Workshop “Les oxydes pour l’optique et la photonique”, 8-9 décembre 2014, Meudon, (France).

26. Complex oxides on semiconductors for nanoelectronic applications
L. Mazet, R. Bachelet, G. Saint-Girons, M. Hÿtch, S. Schamm-Chardon, C Dubourdieu
TMS 2015 conference, 15-19 mars 2015, Orlando, (USA).

27. Molecular beam epitaxy of ferroelectric complex oxides on silicon
C. Dubourdieu, L. Mazet, S. Yang, R. Cours, R. Bachelet, G. Saint-Girons, C. Magen, M. Hytch, S. Kalinin and S. Schamm Chardon
INFOS 2015 conference, 30 juin – 2 juillet 2015, Udine, (Italie).

28. Integration of functional oxides on SOI for agile silicon photonics
P. Rojo Romeo, X. Hu, S. Cueff, R. Orobtchouk, B. Vilquin, R. Bachelet, G. Grenet, C. Dubourdieu, P. Regreny, G. Saint-Girons, P. Castera, A.M. Gutierrez, N. Sanchez, T. Angelova,

P. Sanchis, S. Abel, J. Fompeyrine
ICTON 2015 conference, 5-9 juillet 2015, Budapest, (Hongrie).

29. Heterostructures combining functional oxides and semiconductors for integrated photonics
G. Saint-Girons
Workshop MNP 2015, 2-3 décembre 2015, Besançon, (France).

30. Perovskite Oxide MEMS: Strain Control and Sensor Applications
P. Lecoeur, D. Le Bourdais, G. Agnus, T. Maroutian, S. Matzen, L. Largeau, G. Saint-Girons, B. Vilquin, E. Lefeuvre
MRS 2015 Fall Meeting, 29 novembre – 4 décembre 2015, Boston (USA).

31. Growth of core (GaAs) / shell (functional oxide) nanowires
X. Guan, J. Becdelievre, B. Meunier, A. Benali, G. Saint-Girons, R. Bachelet, P. Regreny, C. Botella, G. Grenet, N. P. Blanchard, X. Jaurand, M. G. Silly, F. Sirotti, N. Chauvin, M. Gendry, J. Penuelas
EMN 2016 conference on Nanowires, may 16-19 2016, Amsterdam (Netherlands).

32. Functional oxides for optical devices
G. Saint-Girons, S. Cueff, B. Meunier, R. Bachelet, J. Penuelas, R. Orobtchouk, P. Rojo-Romeo, B. Vilquin, P. Regreny, G. Grenet, L. Largeau[2], G. Agnus, V. Pillard, D. Le Bourdais, P. Lecoeur, P. Castera, A. Rosa, A.M. Gutierrez, T. Angelova, A. Griol, P. Sanchis, S. Abel, J. Fompeyrine
E-MRS 2016 Fall Meeting, sept. 19-22 2016, Warsaw (Poland).

33. Hybrid silicon-ferroelectric oxide platform for tunable nanophotonics on silicon
S. Cueff, P. Castera, A.M. Gutierrez, P. Rojo Romeo, R. Orobtchouk, B. Wague, B. Vilquin, P. Regreny, A. Rosa, T. Angelova, A. Griol, P. Sanchis, G. Saint-Girons
ICTON 2016 conference, 10-14 juillet 2016, Trento, (Italy).

34 Oxydes fonctionnels intégrés sur Si pour des applications en énergie et photonique
R. Bachelet, M. Apreutesei, R. Moalla, B. Meunier, S. Cueff, P. Regreny, B. Vilquin, P. Rojo-Romeo, R. Orobtchouk, J. Penuelas, G. Grenet, A. Carretero-Genevrier, J. Gazquez, N. Baboux, R. Debord, S. Pailhès, G. Saint-Girons
JNMO 2016, 30 mai – 1er juin 2016, Les Issambres, (France).

35. Growth of hybrid GaAs core / shell nanowires
X. Guan, J. Becdelievre, G. Saint-Girons, R. Bachelet, P. Regreny, C. Botella, G. Grenet, A. Danescu, B. Vilquin, P. Rojo-Romeo, N. Chauvin, N. P. Blanchard, M. G. Silly, F. Sirotti, M. Gendry, J. Penuelas
Colloque annuel du GDR PULSE, 18-22 juillet 2016, Marseille (France).

36. Heterogeneous oxide/semiconductor systems : some specific features of their crystal growth, how could in-situ TEM contribute to their study
G. Saint-Girons

Inauguration du microscope Nanomax, 12 juillet 2017, Ecole polytechnique, Palaiseau (France)

37. Contrôle dynamique de la lumière par des matériaux fonctionnels
S. Cueff, R. Orobtchouk, P. Rojo-Romeo, B. Vilquin, G. Saint-Girons, A. M. Gutierrez, P. Castera, Á. Rosa, P. Sanchis, Y. Zhou, S. Ramanathan, D. Li, J. Kurvits, R. Zia
Workshop du GDR Ondes, 24 octobre 2017, Sophia-Antipolis, Nice (France)

38. Engineering the properties of functional oxides and integrating them on Si and GaAs thanks to molecular beam epitaxy
G. Saint-Girons, M. Bouras, S. Cueff, R. Bachelet, D. Han, J. Penuelas, G. Grenet, P. Regreny, N. Chauvin, L. Largeau
EMRS-2018 Spring meeting, June 18-22, 2018, Strasbourg, France.

39. Mesure des flux pendant la croissance épitaxiale : balance à quartz, spectrométrie de masse, spectrométrie par impact d'électrons
G. Saint-Girons
Atelier du GDR PULSE, october 01-03, 2018, Toulouse, France.

40. Epitaxial integration of nanostructured functional oxides on silicon by solution chemistry
J.M. Vila-Fungueiriño, A. Gómez, G. Saint-Girons, C. Magén, J. Gázquez, R. Bachelet, M. Gich, F. Rivadulla, A. Carretero-Genevrier
EMRS-2018 Spring meeting, June 18-22, 2018, Strasbourg, France.

41. Epitaxial ferroelectric doped HfO_2 thin films on Si(001)
T. Song, J. Lyu, S. Estandía, J. Gàzquez, G. Saint-Girons, R. Bachelet, I. Fina and F. Sánchez
Workshop virtuel sur l'épitaxie des oxydes (EPIDOX), November 17-19th, 2021

42. Oxide MBE: challenges and opportunities - Integration on semiconductors, complex solid solutions and ultimate superlattice
R. Bachelet and G. Saint-Girons
Journées Nationales du GDR OXYFUN, April 1-8, 2022 Guéthary, (France)

43. Advanced optical flux monitoring to control thin layer deposition processes
R. Rousseau, C. Botella, J. Morville and G. Saint-Girons
Workshop du COST OPERA "From Epitaxial Materials towards Technological Transfer", August 29-31 2023 Paris Saclay, France
https://hal.science/hal-04220588

44. Programmable Multilevel Nanophotonics with Phase-Change Materials
F. Bentata, C. Laprais, S. Monfray, N. Baboux, X. Letartre, G. Saint-Girons, P. Genevet, L. Berguiga and S. Cueff
Metafun 2024 conference, July 23-26 2024, Palermo (Italy)

45. Programmable Nanophotonics with Phase-Change Materials: Towards Multilevel Tunability and Low-Loss devices
F. Bentata, C. Laprais, N. Baboux, P. Genevet, S. Monfray, G. Saint-Girons, X. Letartre, L.

Berguiga and S. Cueff
AES 2024 conference, June 25-28 2024, Roma (Italy)

46. Nanophotonique programmable multi-niveaux à base de matériaux à changement de phase
C. Laprais, F. Bentata, A. Taute, N. Baboux, X. Letartre, G. Saint-Girons, S. Monfray, P. Genevet, L. Berguiga and S. Cueff
Congrès "Optique Normandie 2024" de la SFO, 1-5 juillet 2024, Rouen (France)

47. Projet PIA EquipEx+ Nanofutur @INL
P. Regreny, J.B. Goure, C. Botella, C. Furgeaud, R. Rousseau, R. Bachelet and G. Saint-Girons
3ème édition des journées thématiques Renatech "CROISSANCE CRISTALLINE", 7-8 novembre 2024, Toulouse (France)

48. Cavity-enhanced optical flux monitoring for the growth of oxide materials
R. Rousseau, C. Botella, J. Morville, M. Bounab, L. Berguiga, C. Furgeaud, R. Bachelet and G. Saint-Girons
Conférence plénière du GDR MATEPI, 3-6 novembre 2025, IEMN, Lille (France)

49. Comparison of oxide and semiconductor epitaxy and oxide/semiconductor integration
G. Saint-Girons
MATEPI summer school on Epitaxy, 22-27 june 2025, Porquerolles (France)

Séminaires invités

1. Boîtes quantiques In(Ga)As/GaAs épitaxiées par EPVOM pour l 'émission autour de 1,3 µm sur GaAs
G. Saint-Girons, G. Patriarche, B. Sermage, J.M. Moison, I. Sagnes
Séminaire donné au CEM2, Novembre 2002, Montpellier.

2. MOVPE grown In(Ga)As/GaAs QDs for 1.3 µm emission
G. Saint-Girons, I. Sagnes
Séminaire donné à l'Imperial College (London, England), Novembre 2002.

3. MOVPE grown In(Ga)As/GaAs QDs for 1.3 µm emission
G. Saint-Girons, I. Sagnes
Séminaire donné Bookham (Northampton, England), Novembre 2002.

4. MOVPE grown In(Ga)As/GaAs QDs for 1.3 µm emission
G. Saint-Girons, I. Sagnes
Séminaire donné à University of Sheffield (Sheffield, England), Novembre 2002.

5. Boîtes quantiques In(Ga)As/GaAs épitaxiées par EPVOMG. Saint-Girons, A. Michon, G. Patriarche, I. Sagnes, G. BeaudoinSéminaire donné au LPM (INSA de Lyon), mars 2005.

6. EPVOM : boîtes quantiques et hétérostructures GaAs/Si
G. Saint-GironsSéminaire donné au LEOM (Ecole Centrale de Lyon) septembre 2005.

7. Boîtes quantiques de semiconducteurs III-V épitaxiées par EPVOM
G. Saint-Girons
Séminaire donné au LPN le 10 mai 2006.

8. Monolithic integration of crystalline oxides and III-V heterostructures on silicon
G. Saint-Girons
Séminaire donné à l'IHP, Franckfurt/Oder (germany) le 16 septembre 2009.

9. Systèmes épitaxiés combinant oxydes et semiconducteurs
G. Saint-Girons
Séminaire donné au LPN le 10 juin 2010.

10. Systèmes épitaxiés combinant oxydes et semiconducteurs
G. Saint-Girons
Séminaire donné au CRHEA le 5 février 2013.

11. Epitaxial systems combining oxides and semiconductors
G. Saint-Girons
Séminaire donné à l'UMR Thalès le 12 septembre 2019

12. Engineering the dielectric properties of functional oxides and integrating them on semiconductor platforms thanks to oxide molecular beam epitaxy

G. Saint-Girons
Séminaire donné à l'IMEC le 7 octobre 2019

Interventions dans des conférences internationales

1. Optical and structural properties of 1,3 µm emitting LP-MOVPE grown quantum dots
G. Saint-Girons, A. Mereuta, G. Patriarche, J.M. Gérard, I. Sagnes
Indium Phosphide and Related Materials conference, Williamsburg, USA, IPRM 2000.

2. GaAsSbN: a material for 1.3-1.55 µm emission
G.Ungaro, I. Sagnes, G. Le-Roux, L. Largeau, G. Patriarche, G. Saint-Girons, J.C. Harmand
Indium Phosphide and Related Materials conference, Williamsburg, USA, IPRM 2000.

3. Influence of the anneal temperature on the optical properties of 1,3 µm emitting quantum dots
G.Saint-Girons, A. Mereuta, G. Patriarche, J.M. Gérard, I. Sagnes
European Material Research Society conference, Optical Materials 17, 263, (2001).

4. MOVPE growth and characterization of 1,3 µm emitting InAs quantum dots (QDs) for laser application on GaAs
G. Saint-Girons, J.M. Gérard, A. Mereuta, G. Patriarche, L. Largeau, J. Coelho, I. Sagnes
International Workshop on Novel Gain Materials, COST 268, Würzburg (2001).

5. MOVPE growth and characterization of 1.3 µm emitting InAs quantum dots for laser application on GaAs
G. Saint-Girons, J.M. Gérard, A. Mereuta, G. Patriarche, L. Largeau, J. Coelho, I. Sagnes
International Workshop on Novel Gain Materials, COST 268, Lecce (2001).

6. (InGa)(NAs)/GaAs structures emitting in 1 – 1.6 µm wavelength range
A. Mereuta, G. Saint-Girons, S. Bouchoule, I. Sagnes, F. Alexandre, G. Le Roux, J. Decobert, A. Ougazzaden
E-MRS 2000 conference, Optical Materials. **17**, 185, (2001).

7. Micromachined airgap cavities for widely tunable 1.55 µm VCSEL
F. Riemenscheider, J. Pfeiffer, H. Halbritter, M. Aziz, A. Mereuta, G. Saint-Girons, I. Sagnes, P. Meissner
Workshop « Optical MEMS and Integrated Optics », university of Dortmund, (2001).

8. InP/AlGaInAs Distributed Bragg Reflector: a high potential for 1.55 µm VCSELs
A. Mereuta, G. Le Roux, C. Mériadec, L. Largeau, G. Saint-Girons, C. Symonds, J.L. Oudar, and I. Sagnes
International conference on Materials science and condensed matter physics, Chisinau Moldavie, MSCMP (2001).

9. <500 fs soliton pulse in passively mode-locked surface-emitting laser with 100-mW average power
A. Garnache, S. Hoogland, A.C. Tropper, I. Sagnes, G. Saint-Girons, J.S. Roberts
CLEO conference, Long-Beach USA, (2002).

10. Lasing operation under pulsed optical pumping of a 1,55 µm external-cavity VCSEL using an InP/AlGaInAs bottom Bragg reflector
C. Symonds, G. Saint-Girons, I. Sagnes, A. Mereuta, J.L. Oudar
Indium Phosphide and Related Materials conference, Stockholm, Sweden, IPRM (2002).

11. Monolithic Tunable InP-based Vertical Cavity Surface Emitting Laser
J.L. Leclercq, P. Regreny, P. Viktorovitch, A. Bakouboula, T. Benyattou, I. Sagnes, G. Saint-Girons, C. Mériadec, A. Mereuta, A. Plais, J. Jacquet
DTIP conference, Cannes (2002).

12. Silicon on insulator and SiGe waveguide photodetectors with Ge/Si self-assembled islands
M. Elkurdi, P. Boucaud, S. Sauvage, G. Saint-Girons, I. Sagnes, O. Kermarrec, Y. Campidelli, D. Bensahel
E-MRS conference, Strasbourg,(2002).

13. Electromodulation of the interband and intraband absorption of Ge/Si self assembled islands
M. Elkurdi, P. Boucaud, G. Fishman, S. Sauvage, O. Kermarrec, Y. Campidelli, D. Bensahel, G. Saint-Girons, I. Sagnes
E-MRS conference Strasbourg,(2002).

14. Sub-500-fs soliton-like pulse in a passively mode-locked broadband surface-emitting laser with 100-mW average power
A. Garnache, S. Hoogland, A.C. Tropper, I. Sagnes, G. Saint-Girons and J.S. Roberts
Indium-Phosphide-and-Related-Materials 2002 (Stockholm, SE). Paper A8-6

15. MOVPE growth and characterizations of long-wavelength emitting quantum dots based lasers
G. Saint-Girons, A. Garnache, G. Patriarche and I. Sagnes
Indium-Phosphide-and-Related-Materials 2003 (Santa Barbara CA). Paper TuB2.2

16. A new kind of fast quantum-well Semiconductor Saturable-Absorber Mirror with low losses for ps pulse generation
A. Garnache, B. Sermage, R. Teissier, G. Saint-Girons and I .Sagnes
Indium-Phosphide-and-Related-Materials 2003 (Santa Barbara CA). Paper WB1.4

17. A new kind of fast quantum-well Semiconductor Saturable-Absorber Mirror with low losses for ps pulse generation
A. Garnache, B. Sermage, R. Teissier, G. Saint-Girons and I .Sagnes
IEEE CLEO Europe EQEC 2003 (Munich, DE). Paper CC8-2-WED

18. Material and optical properties of GaAs grown on (001) Ge/Si pseudo-substrate for the monolithic integration of light emitting devices on silicon
Y. Chriqui, L. Largeau, G. Patriarche, G. Saint-Girons, S. Bouchoule, D. Bensahel, Y. Campidelli, O. Kermarrec, I. Sagnes
E-MRS conference (2004), Strasbourg

19. Room Temperature laser operation of strained InGaAs/GaAs QW structure monolithically grown by MOVCD on LE-PECVD Ge/Si virtual substrate.
S. Bouchoule, Y. Chriqui, G. Saint-Girons, G. Isella, H. von Kaenel, I. Sagnes
E-MRS conference, mai 2004, Strasbourg

20. 1.55 µm VCSELs with InP/air-gap distributed bragg reflectors
M. Strassner , P. Regreny, S. Bouchoule, N. Chitica, I. Sagnes, G. Saint-Girons, J. Jacquet, and J.-L. Leclercq
Indium-Phosphide-and-Related Materials, juin 2004, Kagoshima (Japon)

21. Room Temperature laser operation of strained InGaAs/GaAs QW structure monolithically grown by MOVCD on LE-PECVD Ge/Si virtual substrate.
Y. Chriqui, G. Saint-Girons, S. Bouchoule, G. Isella, H. von Kaenel, I. Sagnes
MRS spring meeting conference, avril 2004, San Francisco (USA)

22. Material and optical properties of GaAs grown on (001) Ge/Si pseudo-substrate
Y. Chriqui, L. Largeau, G. Patriarche, G. Saint-Girons, S. Bouchoule, D. Bensahel, Y. Campidelli, O. Kermarrec, I. Sagnes
MRS spring meeting conference, avril 2004, San Francisco (USA)

23. Photoluminescence probing of non-radiative channels in hydrogenated In(Ga)As/GaAs quantum dots
G. Saint-Girons, A. Lemaître, V. Navarro-Paredes, G. Patriarche, E.V.K. Rao, I. Sagnes and B. Theys.
Indium-Phosphide-and-Related Materials, juin 2004, Kagoshima (Japon)

24. Photonics, Electronics and Silicon-Germanium :a possible convergence ?
O. Kermarrec, Y. Campidelli, D. Bensahel, S. David, M. El kurdi, P. Boucaud, Y. Chriqui, S. Bouchoule, G. Saint-Girons and I. Sagnes
ECS conference, 3-8 October 2004, Honolulu (Hawaï)

25. Investigation of Buried GaAs/Ge/Si (001) Interfaces using Anomalous X-ray Reflectivity.
E. Wintersberger, J. Stangl, T. Schuelli, M. Meduna, G. Bauer, Y. Chriqui, L. Largeau, I. Sagnes, G. Saint-Girons, D. Bensahel, Y. Campidelli and O. Kermarrec
MRS Fall meeting conference, 29/11 – 3/12 2004, Boston (USA)

26. Stess-engineered orderings of self-assembled III-V semiconductor nanostructures
J. Coelho, G. Patriarche, F. Glas, I. Sagnes and G. Saint-Girons
Congrès EXMATEC Montpellier, 1-4 juin 2004.

27. Dynamics of carrier –capture processes in $Ga_{0.47}In_{0.53}As$/InP near-surface quantum wells
C. Symonds, J. Mangeney, G. Saint-Girons, I. Sagnes, K. Meunier, A. Garnache
Indium-Phosphide-and-Related Materials, may 2005, Glasgow (Scotland)

28. Microphotoluminescence around 1.5 µm from a Single InAs/InP(001) Quantum Dot grown by MOVPE.
N. Chauvin, A. Michon, I. Sagnes, G. Patriarche, G. Beaudoin, G. Brémond, C. Bru-Chevallier and G. Saint-Girons
CLEO - 21 to 26 may 2006 - Long Beach (USA)

29 InAs/InP(001) quantum dots and quantum sticks grown by Metalorganic Vapor Phase Epitaxy : shape, anisotropy and formation process.
A. Michon, G. Patriarche, I. Sagnes, G. Beaudoin and G. Saint-Girons
Quantum Dots 2006 conference – 2 to 5 may 2006 – Chamonix (France)

30. Thermodynamic analysis of the shape, anisotropy and formation process of InAs/InP(001) quantum dots and quantum sticks grown by Metalorganic Vapor Phase Epitaxy.
G. Saint-Girons, A. Michon, I. Sagnes, G. Beaudoin and G. Patriarche
Nanosea 2006 conference – 2 to 7 july 2006 - Aix en Provence (France)

31. Thermodynamic analysis of the shape, anisotropy and formation process of InAs/InP(001) quantum dots and quantum sticks grown by Metalorganic Vapor Phase Epitaxy.
G. Saint-Girons, A. Michon, I. Sagnes, G. Beaudoin and G. Patriarche
ICPS 2006 conference – 24 to 28 july 2006 – Vienna (Austria).

32. MBE Growth and relaxation of Al_2O_3 on Si
C. Merckling, M. El-Kazzi, G. Delhaye, V. Favre-Nicolin, O. Marty, Y. Jugnet, L. Largeau, G. Patriarche, G. Saint-Girons, Y. Robach, M. Gendry, G. Grenet, G. Hollinger
E-MRS conference 2006 – may 29 to june 1st 2006 – Nice (France)

33. InAs/InP(001) Quantum Dots And Quantum Sticks Grown By MOVPE: Shape, Anisotropy And Formation Process
G. Saint-Girons, A. Michon, I. Sagnes, G. Beaudoin, and G. Patriarche
AIP Conf. Proc. **893**, 71 (2007)

34. XPD investigation of heterostructures of thin epitaxial oxides : $LaAlO_3/SrTiO_3(001)$ and γ-Al_2O_3/Si
M. El Kazzi, C.Merckling, G. Delhaye, G. Saint-Girons, G.Grenet, G. Hollinger
E-MRS conference 2006 – may 28 to june 1st 2006 – Nice (France)

35. Development of robust interfaces based on crystalline γ-$Al_2O_3(001)$ for subsequent deposition of amorphous high-κ oxides
C. Merckling , M. El-Kazzi, L. Beccera, L. Largeau, G. Patriarche, G. Saint-Girons, G. Hollinger
INFOS 2007 conference - june 20 to 23 2007 – Athen, greece

36. Epitaxial growth of high-κ oxides on silicon
C. Merckling, G. Saint-Girons, G. Delhaye, G. Patriarche, L. Largeau, V. Favre-Nicollin, M. El-Kazzi, P. Regreny, B. Vilquin, O. Marty, C. Botella, M. Gendry, G. Grenet, Y. Robach and G. Hollinger
ICSI 5 conference, may 20 to 25 2007, Marseille, France

37. XPD and RHEED investigation of thin epitaxial $Al_2O_3/Si(111)$ and $Al_2O_3/Si(001)$
M. El Kazzi, C. Merckling, G. Saint-Girons, G. Grenet, G. Hollinger
ICSI 5 conference, may 20 to 25 2007, Marseille, France

38. Epitaxial growth of $LaAlO_3$ on Si(001) using interface engineering
C. Merckling, G. Delhaye, M. El-Kazzi, S. Gaillard, Y. Rozier, L. Rapenne, B. Chenevier, O. Marty, G. Saint-Girons, M. Gendry, Y. Robach, G. Hollinger
WODIM 2007 conference, june 26 to 28 2007 – Santa-Tecla (Italy)

39. Luminescence properties of single InAs/InP(001) quantum dots grown by solid source molecular beam epitaxy
E. Dupuy, N. Pauc, N. Chauvin, G. Patriarche, P. Regreny, G. Saint-Girons, D. Drouin, V. Aimez, C. Bru-Chevallier, M. Gendry, D. Morris
CSTC 2007, 14-17 Aout 2007, Montréal (Canada)

40. Properties of single InAs/InP(001) quantum dots grown by solid source molecular beam epitaxy
E. Dupuy, N. Pauc, N. Chauvin, G. Patriarche, P. Regreny, G. Saint-Girons, D. Drouin, V. Aimez, G. Bremond, C. Bru-Chevallier, D. Morris, M. Gendry
EuroMBE 2007, 5-7 Mars 2007, Grenade (Espagne)

41. Optimization of the MBE growth conditions of crystalline $SrTiO_3$ on Si (001)
G. Delhaye, M. El Kazzi, C. Merckling, X. Genzhao, G. Saint-Girons, M. Gendry, L. Largeau, G. Patriarche, G. Hollinger, Y. Robach
ICSI5, 20-25 may 2007, Marseille.

42. Monolithic integration of InP based heterostructures on silicon using crystalline Gd_2O_3 buffers.
G. Saint-Girons, P. Regreny, J. Cheng, G. Hollinger, L. Largeau, G. Patriarche
IPRM 2008 conference, may 25 to 29, (2008) – Versailles (France)

43. Strategies for CMOS low equivalent oxide thickness achievement with high-κ oxides grown on Si(001) by MBE
L. Becerra, N. Baboux, C. Plossu, C. Merckling, M. El-Kazzi, G. Saint-Girons, B. Vilquin, G. Hollinger
MRS2008 – Spring meeting, march 24-28, (2008) – San Francisco (USA).

44. Epitaxial growth of high-κ oxides on silicon for advanced CMOS: $LaAlO_3$, Gd_2O_3, γ-Al_2O_3
C. Merckling, M. El-Kazzi, L. Becerra, G. Saint-Girons, G. Delhaye, G. Patriarche, L. Largeau, V. Favre-Nicolin, N. Baboux, C. Plossu, O. Marty, and G. Hollinger
WODIM 2008, june 23-25, (2008) – Bas Saarow (Germany)

45. Impact of a γ-Al_2O_3(001) barrier on $LaAlO_3$ MOS capacitors electrical properties
L. Becerra, C. Merckling, M. El-Kazzi, N. Baboux, B. Vilquin, G. Saint-Girons, C. Plossu, and G. Hollinger
WODIM 2008, june 23-25, (2008) – Bas Saarow (Germany)

46. Integration of functional oxides on STO buffered silicon
B. Vilquin, G. Niu, G. Delhaye, G. Saint-Girons, Y. Robach, B. Canut, G. Hollinger, B. Blein, S. Autier-Laurent, P. Lecoeur
Trans'Alp Nano 2008 conference, october 27-29, 2008, Lyon (France)

47. Monolithic integration of III-V heterostructures on silicon using crystalline oxide buffers
J. Cheng, G. Saint-Girons, P. Regreny, G. Patriarche, L. Largeau, M. Gendry, G. Hollinger
Trans'Alp Nano 2008 conference, october 27-29, 2008, Lyon (France)

48. Synchrotron radiation and conventional X-ray source photoemission studies of γ-Al_2O_3 thin films grown on Si(111) and Si(001) by molecular beam epitaxy
M. El-Kazzi, C. Merckling, G. Grenet, G. Saint-Girons, M. Silly, F. Sirotti, G. Hollinger
MRS Spring meeting 2009, 13-17 April 2009, San-Francisco (USA)

49. Growth temperature dependence of epitaxial Gd_2O_3 films on Si(111)
G Niu, B. Vilquin, L. Becerra, S. Pelloquin, G. Saint-Girons and G. Hollinger
INFOS 2009 conference, 29 juin-1 juillet 2009, Cambridge (UK)

50. Molecular beam deposition of $LaAlO_3$ on silicon for sub-22 nm CMOS technological nodes : toward a perfect control of the oxide/Si heteorinterface
S. Pelloquin, L. Becerra, G. Saint-Girons, C. Plossu, N. Baboux, D. Albertini, P. Regreny, G. Grenet, G. Hollinger
INFOS 2009 conference, 29 juin-1 juillet 2009, Cambridge (UK)

51. Direct epitaxial growth of InP based heterostructures on $SrTiO_3$/Si templates
G. Saint-Girons, J. Cheng, A. Chettaoui, B. Gobaut, J. Penuelas, P. Regreny, M. Gendry, L. Largeau, G. Patriarche, G. Hollinger
EMRS 2010 spring meeting, june 7-11 (2010), Strasboug (France)

52. Direct epitaxial growth of $SrTiO_3$ on Si : interface and crystallization
G. Niu, W.W. Peng, G. Saint-Girons, J. Penuelas, P. Roy, J.B. Brubach, J-L. Maurice, G. Hollinger, and B. Vilquin
EMRS 2010 spring meeting, june 7-11 (2010), Strasboug (France)

53. Structural properties of III-V quantum dots on $SrTiO_3$/Si
J. Penuelas, B. Gobaut, J. Cheng, A. Chettaoui, L. Largeau, G. Patriarche, G. Hollinger, G. Saint-Girons
EMRS 2010 spring meeting, june 7-11 (2010), Strasboug (France)

54. Chemical bonding at Ge/$SrTiO_3$ interface versus Ge growth temperature and surface stoechiometry
M. El Kazzi, G. Grenet, J. Penuelas, B. Gobaut, M. Thomasset, M. Silly, F. Sirotti, G. Saint-Girons
EMRS 2010 spring meeting, june 7-11 (2010), Strasboug (France)

55. Electrical characteristics of Gd_2O_3 films on Si(111) : impact of growth temperature and post-deposition annealing
G. Niu, B. Vilquin, N. Baboux, G. Saint-Girons, C. Plossu, G. Hollinger
MRS 2010 spring meeting, april 5-9 (2010), San Francisco (USA)

56. Monolithic integration of III-V heterostructures on silicon using crystalline oxide buffers
J. Cheng, G. Saint-Girons, P. Regreny, G. Patriarche, L. Largeau, M. Gendry and G. Hollinger
MRS 2010 spring meeting, april 5-9 (2010), San Francisco (USA)

57. $LaAlO_3$/Si capacitors : comparison of different molecular beam deposition processes and impact on electrical properties
S. Pelloquin, G. Saint-Girons, G. Grenet, N. Baboux, P. Regreny, D. Albertini, C. Plossu and G. Hollinger
MRS 2010 spring meeting, april 5-9 (2010), San Francisco (USA)

58. Nanoscale study of the influence of atomic oxygen on the electrical properties of $LaAlO_3$ thin high-k oxide films deposited by molecular beam epitaxy
W. Hourani, L. Militaru, B. Gautier, D. Albertini, A. Descamps-Mandine, S. Pelloquin, C. Plossu and G. Saint-Girons
MRS 2010 spring meeting, april 5-9 (2010), San Francisco (USA)

59. Defect free vertical NWs grown on $SrTiO_3$ substrates by VLS-MBE
K. Naji, H. Dumont, G. Saint-Girons, G. Patriarche and M. Gendry
MRS 2010 spring meeting, april 5-9 (2010), San Francisco (USA)

60. Epitaxy of $BaTiO_3$ thin films on Si(001) using a $SrTiO_3$ buffer layer for non-volatile memory application
G. Niu, Y. Shi, G. Saint-Girons, B. Gautier, P. Lecoeur, V. Pillard, G. Hollinger and B. Vilquin
INFOS 2011 conference, june 21-24 (2011), Grenoble (France)

61. Monolithic integration of InP based heterostructures on silicon using $SrTiO_3$ templates
A. Chettaoui, B. Gobaut, J. Penuelas, J. Cheng, G. Niu, L. Largeau, P. Regreny, G. Saint-Girons
EuroMBE 2011 conference, March 20-23 (2011), L'Alpe d'Huez (France)

62. Early stages of the growth of InP and GaAs islands on $SrTiO_3$ substrates
B. Gobaut, J. Penuelas, A. Chettaoui, J. Cheng, G. Grenet, L. Largeau and G. Saint-Girons
EuroMBE 2011 conference, March 20-23 (2011), L'Alpe d'Huez (France)

63. Growth directions and structural properties of InP nanowires fabricated on Si and $SrTiO_3$ substrates
J. Penuelas, K. Naji, H. Dumont, G. Saint-Girons, G. Patriarche, M. Gendry
EuroMBE 2011 conference, March 20-23 (2011), L'Alpe d'Huez (France)

64. Epitaxial growth of $SrTiO_3$ on Si : strain relaxation and formation of tetragonal domains
G. Saint-Girons, G. Niu, J. Penuelas, L. Largeau, B. Vilquin, J.L. Maurice C. Botella and G. Hollinger
EuroMBE 2011 conference, March 20-23 (2011), L'Alpe d'Huez (France)

65. Crucial impact of oxygen vacancy defects on the ferroelectric characteristics of epitaxial $BaTiO_3$ thin films
G. Niu, B. Gautier, S. Yin, G. Saint-Girons, P. Lecoeur, V. Pillard, G. Hollinger, B. Vilquin
E-MRS 2011 spring meeting, May 9-13 (2011), Nice (France).

66. Crucial impact of oxygen vacancy defects on the ferroelectric characteristics of epitaxial $BaTiO_3$ thin films
G. Niu, B. Gautier, S. Yin, G. Saint-Girons, P. Lecoeur, V. Pillard, G. Hollinger, B. Vilquin
E-MRS 2011 spring meeting, May 9-13 (2011), Nice (France).

67. Orientation and strain of Ge nanodots on $SrTiO_3$ observed by Grazing Incidence X-ray Scattering
B. Gobaut, J. Penuelas, N. Blanc, V. Favre-Nicolin, G. Renaud and G. Saint-Girons
Size and Strain VI, october 17-20 2011, Presqu'ile de Giens (France).

68. Epitaxial growth of $SrTiO_3$ on Si : strain relaxation and formation of tetragonal domains
G. Saint-Girons, G. Niu, J. Penuelas, L. Largeau, B. Vilquin, J.L. Maurice C. Botella and G. Hollinger
Size and Strain VI, october 17-20 2011, Presqu'ile de Giens (France).

69. Direct epitaxy of III-V heterostructures on silicon using $SrTiO_3$/Si templates
A. Chettaoui, B. Gobaut, J. Penuelas, J. Cheng, G. Niu, L. Largeau, P. Regreny and G. Saint-Girons
E-MRS 2012 spring meeting, May 14-18 (2012), Strasbourg (France).

70. Monolithic integration of Ge on $SrTiO_3$: mismatch accommodation for very heterogeneous epitaxial systems
B. Gobaut, J. Penuelas, N. Blanc, V. Favre-Nicolin, G. Renaud, A. Danescu, J. Wang, I. Lefebvre, G. Saint-Girons
E-MRS 2012 spring meeting, May 14-18 (2012), Strasbourg (France).

71. Integration of ferromagnetic spinel oxide on silicon using structurally-compatible nanometric epitaxial buffer-layer
R. Bachelet, F. Sánchez, P. de Coux, B. Warot-Fonrose, V. Skumryev, G. Niu, B. Vilquin, G. Saint-Girons, G. Hollinger, J. Fontcuberta
E-MRS 2012 spring meeting, May 14-18 (2012), Strasbourg (France).

72. Ge/$SrTiO_3$ heterogeneous system
B. Gobaut, J. Penuelas, G. Grenet, D. Ferrah, A. Benamrouche, A. Chettaoui, Y. Robach, C. Botella, L. Largeau, M. El-Kazzi, M. G. Silly, F. Sirotti and G. Saint-Girons
ECOSS conference 2012, Sept 3-7(2012), Edinburgh (UK)

73. Crystallography and physico-chemistry of the Ge/$SrTiO_3$ interface: how low adhesion energy affects mismatch accommodation and crystal orientation
G. Saint-Girons, B. Gobaut, A. Danescu, J. Penuelas, G. Grenet, N. Blanc, T. Zhou, V. Favre-Nicolin, G. Renaud, M. El-Kazzi, M. Silly and F. Sirotti
2012 MRS Fall Meeting, Nov. 25-30 (2012), Boston (USA)

74. Integration of ferromagnetic spinel oxides on silicon using ultrathin structurally-compatible epitaxial buffer-layers
R. Bachelet, F. Sánchez, P. de Coux, B. Warot-Fonrose, V. Skumryev, G. Niu, B. Vilquin, G. Saint-Girons, G. Hollinger, J. Fontcuberta
2012 MRS Fall Meeting, Nov. 25-30 (2012), Boston (USA)

75. Piezoelectric $Pb(Zr,Ti)O_3$ thin films on $SrTiO_3$/GaAs
L. Louahadj, D. Le Bourdais, L. Largeau, G. Agnus, L. Mazet, R. Bachelet, P. Regreny, D. Albertini, V. Pillard, C. Dubourdieu, B. Gautier, P. Lecoeur, G. Saint-Girons
E-MRS Fall meeting, sept 16-20 2013, Warsaw (Poland)

76. Integration of ferromagnetic spinel oxides on silicon using structurally-compatible epitaxial buffer-layers
R. Bachelet, L. Louahadj, G. Niu, C. Dubourdieu, G. Saint-Girons, P. de Coux, B. Warot-Fonrose, V. Skumryev, J. Fontcuberta, F. Sánchez
EMRS Spring meeting, may 27-31 2013, Strasbourg (France)

77. Molecular beam epitaxy for the growth of perovskite oxides on semiconductor platforms
L. Louahadj, R. Bachelet, C. Dubourdieu, P. Regreny, C. Chaix, G.Saint-Girons
EMRS Spring meeting, may 27-31 2013, Strasbourg (France)

78. Molecular beam epitaxy of functional oxides on silicon
L. Louahadj, R. Bachelet, P. Regreny, C. Chaix, G. Niu, G.Saint-Girons
17th EuroMBE conference, march 10-13 2013, Levi (Finland)

79. Weakly interacting epitaxial systems : the semiconductor/$SrTiO_3$ case
G. Saint-Girons, A. Danescu, B. Gobaut, J. Penuelas, G. Grenet, G. Renaud, N. Blanc, V. Favre-Nicollin, M. El-Kazzi, F. Sirotti, M. Silly
17th EuroMBE conference, march 10-13 2013, Levi (Finland)

80. Young modulus and Poisson ratio of polycristalline and single crystal PZT thin film measured by picosecond ultrasonics
F. Casset, A. Devos, J. Abergel, G. Le Rhun,B. Vilquin, R. Bachelet, G. Saint-Girons, P. Emery, P. Ancey, S. Fanget, E. Defaÿ
IEEE International ultrasonics symposium, july 21-25 2013, Prague (Czech Republic)

81. Molecular beam epitaxy of perovskite oxides on semiconductor platforms
L. Louahadj, R. Bachelet, C. Dubourdieu, N. Baboux, P. Regreny, C. Chaix, G.Saint-Girons
Workshop on functional oxides, april 7-10 2013, Autrans (France)

82. Monolithic integration of functional oxides on GaAs
G. Agnus, P. Regreny, P. Lecoeur, L. Largeau, V. Pillard, L. Louahadj, R. Bachelet, N. Baboux, C. Dubourdieu and G. Saint-Girons
Workshop on functional oxides, april 7-10 2013, Autrans (France)

83. Weakly interacting epitaxial systems : the semiconductor/$SrTiO_3$ case
A. Danescu, G. Saint-Girons, B. Gobaut, J. Penuelas, G. Grenet, G. Renaud, N. Blanc, V. Favre-Nicollin, M. El-Kazzi, F. Sirotti, M. Silly
Workshop on functional oxides, april 7-10 2013, Autrans (France)

84. Slot waveguide electro-optic modulator with ferroelectric oxide $BaTiO_3$ on Silicon.
X. Hu, R. Orobtchouk, S. Cueff, P. R. Rojo Romeo, P. Regreny, R. Bachelet, L. Mazet, L. Louahadj, Ramah Moalla, C. Dubourdieu, B. Vilquin, G. Saint Girons, P. Castera, N. Sanchez, T. Angelova, A. Griol, A. M. Gutierrez, P. Sanchis
11th International Conference on Group IV Photonics, August 27-29 2014, Paris (France)

85. Electro-optic modulation with functional oxides monolithically integrated on silicon.
S. Cueff, X. Hu, R. Orobtchouk, P. Rojo-Romeo, R. Bachelet, B. Vilquin, M. Hayes, C. Dubourdieu, P. Regreny, G. Grenet, G. Saint-Girons, P. Castera, N. Sanchez, T. Angelova, L. Bellieres, A. Griol, F. López, A. M. Gutierrez, P. Sanchis
Silicon Photonics Summer School organized by PLAT4M project, june 29-july 4 2014, Ghent (Belgium)

86. Ferroelectric Pb Zr,Ti)O_3 thin layers on $SrTiO_3$/GaAs
B. Meunier, L. Louahadj, D. Le Bourdais, L. Largeau, G. Agnus, L. Mazet, R. Bachelet, P. Regreny, D. Albertini, V. Pillard, C. Dubourdieu, B. Gautier, P. Lecoeur, G. Saint-Girons
26th IPRM conference, may 11-15 2014, Montpellier, (France)

87. Engineering of oxide based resistive switching for passive crossbar integration
F. Alibart, S. La Barbera, D. Vuillaume, M. Minvielle, G. Saint-Girons, R. Bachelet, C. Dubourdieu
EMRS 2014 spring meeting, may 26-30 2014, Lille (France)

88. Epitaxial growth of $BaTiO_3$ on semiconductor substrates by molecular beam epitaxy for ferroelectric devices
L. Mazet, R. Bachelet, L. Louahadj, C. Botella, M.M. Frank, J. Jordan-Sweet, I. Lauer, V. Narayanan, D. Albertini, B. Gautier, G. Saint-Girons, M. Hÿtch, S. Schamm-Chardon, C. Dubourdieu
EMRS 2014 Fall meeting, sept 15-18 2014, Warsaw (Poland)

89. Epitaxial growth of $BaTiO_3$ on Si and SOI by molecular beam epitaxy for ferroelectric applications
L. Mazet, R. Bachelet, L. Louahadj, S. Schamm-Chardon, M. Hytch, D. Albertini, B. Gautier, G. Saint-Girons, C. Dubourdieu
ISAF 2014, May 12-16, 2014, Penn State University, PA, (USA)

90. Ferroelectric $BaTiO_3$ thin films grown on Si(001) by molecular beam epitaxy
L. Mazet, R. Bachelet, L. Louahadj, R. Moalla, D. Albertini, B. Gautier, G. Saint-Girons, C. Dubourdieu
European Conference on Application of Polar Dielectrics (ECAPD), July 7-11, 2014, Vilnius, (Lithuania)

91. Epitaxial pyroelectric thin films on silicon for thermal energy harvesting
R. Moalla, L. Mazet, L. Louahadj, Q. Liu, J. Penuelas, B. Vilquin, G. Saint-Girons, C. Dubourdieu, R. Bachelet
E-MRS 2014 Spring Meeting, may 26-30 2014, Lille, (France)

92. Epitaxial pyroelectric thin films on silicon for thermal energy harvesting
R. Moalla, L. Mazet, L. Louahadj, Q. Liu, J. Penuelas, B. Vilquin, G. Saint-Girons, C. Dubourdieu, R. Bachelet
Nanotech MEET conference 2014, April 24-26, 2014, Hammamet, (Tunisa)

93. Local tetragonality of epitaxial $BaTiO_3$ thin films on Si for ferroelectric applications
S. Schamm-Chardon, T. Denneulin, M. Hÿtch, L. Mazet, R. Bachelet, G. Saint-Girons, C. Dubourdieu
18th international Microscopy congress, Sept 7-12 2014, Prag, (Czech Republic)

94. Epitaxial Growth of Ferroelectric $Pb(Zr,Ti)O_3$ Layers on GaAs
B. Meunier, L. Louahadj, D. Le Bourdais, L. Largeau, G. Agnus, L. Mazet, R. Bachelet, P. Regreny, C. Botella, G. Grenet, D. Albertini, V. Pillard, C. Dubourdieu, B. Gautier, P. Lecoeur, G. Saint-Girons
MRS 2014 Spring meeting, april 21-25 2014, San Francisco, (USA)

95. Ir / $SrTiO_3$ / Si multilayers: a promising substrate for diamond heteroepitaxy
K.H. Lee, S. Saada, J.C. Arnault, G. Saint-Girons, R. Bachelet, A. Tallaire, J. Achard, H. Bensalah, I. Stenger, J. Barjon
DCM 2015 conference, 6-10 septembre 2015, Band Homburg, (Germany).

96. Epitaxial growth of ferroelectric $Pb(Zr,Ti)O_3$ thin layers on SrTiO3-templated GaAs/InGaAs quantum well structure for opto-mechanical application
B. Meunier, R. Bachelet, B. Vilquin, P. Rojo-Romeo, G. Grenet, C. Botella, P. Regreny, J. Penuelas, G. Agnus, P. Lecoeur, V. Pillard, N. Chauvin, L. Largeau and G. Saint-Girons
EMRS 2015 Spring Meeting, 11-15 mai 2015, Lille, (France).

97. Soft chemistry integration of ferromagnetic $La_{0.7}Sr_{0.3}MnO_3$ on silicon
José M. Vila-Fungueiriño, A. Carretero-Genevrier, B. Rivas-Murias, R. Moalla, R. Bachelet, G.Saint-Girons, F. Rivadulla
EMRS 2015 Spring Meeting, 11-15 mai 2015, Lille, (France).

98. Thermal energy harvesting through epitaxial pyroelectric oxide films integrated on silicon
R. Moalla, Q. Liu, José M. Vila-Fungueiriño, A. Carretero-Genevrier, B. Rivas-Murias, F. Rivadulla, G. Saint-Girons, B. Vilquin, N. Baboux, G. Sebald, C. Dubourdieu, R. Bachelet
EMRS 2015 Spring Meeting, 11-15 mai 2015, Lille, (France).

99. Epitaxial pyroelectric $Pb(Zr,Ti)O_3$ thin films on silicon for thermal energy harvesting
R. Moalla, L. Liu, G. Saint-Girons B. Vilquin, N. Baboux, G. Sebald, C. Dubourdieu, R. Bachelet
EMRS 2015 Spring Meeting, 11-15 mai 2015, Lille, (France).

100. Epitaxial growth of ferroelectric $Pb(Zr,Ti)O_3$ thin layers on $SrTiO_3$-templated GaAs/InGaAs quantum well structure for opto-mechanical application
B. Meunier, R. Bachelet, B. Vilquin, P. Rojo-Romeo, G. Grenet, C. Botella, P. Regreny, J. Penuelas, G. Agnus, P. Lecoeur, V. Pillard, N. Chauvin, L. Largeau and G. Saint-Girons
EuroMBE 2015 conference, 15-18 mars 2015, Canazei, (Italie).

101. Strong electrocaloric anisotropy in epitaxial $Pb(Zr,Ti)O_3$ heterostructures
R. Moalla, B. Vilquin, G. Saint-Girons, N. Baboux, G. Sebald, R. Bachelet
EMRS 2015 Fall Meeting, 15-18 septembre 2015, Varsovie, (Pologne).

102. Monolithic integration of pyroelectric oxide films on silicon for thermal energy harvesting and cooling applications
R. Moalla, N. Baboux, G. Sebald, B. Vilquin, G. Saint-Girons, R. Bachelet
EMRS 2015 Fall Meeting, 15-18 septembre 2015, Varsovie, (Pologne).

103. Electromechanical response of amorphous LaAlO3 thin film probed by scanning probe microscopies
A. Borowiak, H. Tanaka, N. Baboux, D. Albertini, B. Vilquin, G. Saint-Girons B. Gautier
ISAF 2015 conference, 24-27 mai 2015, Singapore.

104. Monolithic integration of functional oxides in silicon by chemical solution deposition
A. Carretero-Genevrier, M. Gich, J. M. Vila-Fungueiriño, G. L. Drisko, L. Picas, J. Gazquez, B. Rivas-Murias, R. Bachelet, G.Saint-Girons, J. Rodriguez-Carvajal, F. Rivadulla, C. Sanchez
MRS 2015 Spring Meeting, 6-10 avril 2015, San-Francisco (USA).

105. Chemical solution deposition to epitaxial functional complex oxide nanostructures and thin films
A. Carretero-Genevrier, M. Gich, R. Bachelet, G. Saint-Girons, J.M. Vila-Fungueiriño, B. Rivas-Murias, J. Gazquez, G.L. Drisko, Judith Oró-Solé, E. Ferain, T. Puig, X. Obradors, F. Rivadulla, J. Rodriguez-Carvajal, C. Sanchez, N. Mestres
MRS 2015 Spring Meeting, 6-10 avril 2015, San-Francisco (USA).

106. Functional spinel oxide heterostructures on silicon
R. Bachelet, P. de Coux, B. Warot-Fonrose, V. Skumryev, G. Niu, B. Vilquin, G. Saint-Girons, F. Sánchez
MRS 2015 Spring Meeting, 6-10 avril 2015, San-Francisco (USA).

107. Hybrid silicon-ferroelectric oxide slot waveguide for on-chip optoelectronics
S. Cueff, R. Orobtchouk, P. Rojo-Romeo, X. Hu, R. Bachelet, P. Regreny, B. Vilquin and G. Saint-Girons
MRS 2015 Fall Meeting, 29 novembre – 4 décembre 2015, Boston (USA).

108. Structural study of $BaTiO_3$ films grown on $Si_{1-x}Ge_x$ substrates by molecular beam epitaxy: role of passivation
L. Mazet, C. Botella, R. Cours, R. Bachelet, G. Saint-Girons, M.M. Frank, V. Narayanan, S. Schamm-Chardon, C. Dubourdieu
MRS 2015 Fall Meeting, 29 novembre – 4 décembre 2015, Boston (USA).

109. Strain and Cation Stoichiometry in Epitaxial $BaTiO_3$ Thin Films Grown on Silicon
S. Schamm-Chardon, C. Magen, R. Guzman, L. Mazet, R. Cours, R. Bachelet, G. Saint-Girons, M. Hytch, C. Dubourdieu
MRS 2015 Fall Meeting, 29 novembre – 4 décembre 2015, Boston (USA).

110 Functional oxide pressure sensor
D. Le Bourdais, G. Agnus, T. Maroutian, V. Pillard, G. Saint-Girons, B. Vilquin, E. Lefeuvre, P. Lecoeur,
EMRS Spring Meeting, May 11-15, 2015.Lille (France

111. Interface reactivity and epitaxial growth of SrTiO3 and other functional oxides on Si and GaAs
B. Meunier, R. Moalla, A. Carretero-Genevrier, L. Largeau J. Gazquez, P. Regreny, C. Botella, J. Penuelas, B. Vilquin, B. Wague, G. Grenet, G. Agnus, P. Lecoeur, M.G. Silly, F. Sirotti, R. Bachelet and G. Saint-Girons
IC-MBE 2016 international conference, 4-9 sept 2016, Montpellier (France)

112. GaAs Core / $SrTiO_3$ Shell Nanowires Grown by Molecular Beam Epitaxy
X. Guan, J. Becdelievre, B. Meunier, A. Benali, G. Saint-Girons, R. Bachelet, P. Regreny, C. Botella, G. Grenet, N. P. Blanchard, X. Jaurand, M. G. Silly, F. Sirotti, N. Chauvin, M. Gendry, J. Penuelas
IC-MBE 2016 international conference, 4-9 sept 2016, Montpellier (France)

113. GaAs nanowires with oxidation-proof arsenic capping for the growth of heteroepitaxial shell
X. Guan, J. Becdelievre, A. Benali, C. Botella, G. Grenet, P. Regreny, N. Chauvin, N. P. Blanchard, X. Jaurand, G. Saint-Girons, M. Gendry, J. Penuelas
IC-MBE 2016 international conference, 4-9 sept 2016, Montpellier (France)

114. $LiNbO_3$ Films for Acoustic Wave Applications
A. Bartasyte, S. Oliveri, T. Baron, R. Salut, S. Margueron, S. Ballandras, G. Saint-Girons, B. Gautier, R. Bachelet, D. Albertini, P. Boulet
IEEE International Ultrasonics Symposium, 18-21 sept 2016, Tours (France)

115. Effect of Bias Enhanced Nucleation parameters on diamond heteroepitaxy on Ir/$SrTiO_3$/Si (001)
K.H. Lee, S. Saada, J.C. Arnault, G. Saint-Girons, R. Bachelet
MRS Spring meeting 2016, March 28th – April 1st 2016, Phoenix (USA)

116. Functional oxides on silicon for on-chip thermal management
R. Moalla, M. Apreutesei, B. Vilquin, P. Regreny, C. Botella, G. Grenet, A. Carretero-Genevrier, J. Gazquez, G. Sebald, N. Baboux, R. Debord, S. Pailhès, G. Saint-Girons, R. Bachelet
XVth Electroceramics conference, 27-29 june 2016, Limoges (France)

117. (001) Ir / $SrTiO_3$ / Si: a promising substrate for diamond heteroepitaxy
K. H. Lee, S. Saada, N. Tranchant, J.C. Arnault, R. Moalla, G. Saint-Girons, R. Bachelet, A. Tallaire, O. Brinza, J. Achard, H. Bensalah, I. Stenger, J. Barjon
SBDD XXI conference, 9-11 march 2016, Hasselt (Belgium)

118. Ferroelectric oxide slot waveguide electro-optic modulator on Silicon
S. Cueff, R. Orobtchouk, P. Rojo-Romeo, A. M. Gutierrez, P. Castera, Á. Rosa, B. Wague, X. Hu, R. Bachelet, P. Regreny, B. Vilquin, P. Sanchis and G. Saint-Girons
SPIE Photonic West 2016 Conference, 13-18 february 2016, San-Francisco (USA)

119. Diamond heteroepitaxy on Ir / SrTiO3 / Si (001) substrates: from nucleation to thick films characterizations
K. H. Lee, S. Saada, N. Tranchant, J.C. Arnault, R. Moalla, G. Saint-Girons, R. Bachelet, A. Tallaire, O. Brinza, J. Achard, H. Bensalah, I. Stenger, J. Barjon, C. Ricolleau
28th international conference on diamond and related materials, 3-7 september 2017, Gothenborg (Sweden)

120. Epitaxial growth of nanostructured functional oxides on silicon by solution chemistry
J.M. Vila-Fungueiriño, A. Gómez, R. Moalla, G. Saint-Girons, C. Magen, J. Gázquez, R. Bachelet, M. Gich, F. Rivadulla, A. Carretero-Genevrier
EMRS 2017 Spring meeting, 22-26 may 2017, Strasbourg (France)

121. Perovskite oxide engineering by molecular beam epitaxy for integrated thermoelectricity
M. Bouras, M. Apreutesei, R. Moalla, R. Debord, P. Regreny, C. Botella, G. Grenet, M. Bugnet, A. Carretero-Genevrier, J. Gazquez, Q. d'Acremont, S. Dilhaire, P.O. Chapuis, S. Pailhès, G. Saint-Girons, R. Bachelet
ECT 2017 conference, 25-27 september 2017, Padua (Italy)

122. Perovskite oxide engineering using molecular beam epitaxy
M. Bourras, M. Apreutesei, N. Baboux, S. Cueff, R. Debord, N. Chauvin, S. Pailhès, R. Bachelet, G. Saint-Girons
EMRS 2017 Fall meeting, 18-21 september 2017, Warsaw (Poland)

123. Ultra-long self-catalyzed GaAs nanowires grown by Molecular Beam Epitaxy on Si(111)
J. Becdelievre, X. Guan, N. Chauvin, P. Regreny, M. Gendry, G. Patriarche, G. Saint-Girons, B. Gautier, J. Penuelas
Nanowire week 2017, may 28 – june 2 2017, Lund (Sweden)

124. Decreasing thermal conductivity by atomic engineering in epitaxial oxide films for enhanced integrated thermoelectricity
D. Han, M. Bouras, R. Moalla, M. Apreutesei, R. Debord, P. Regreny, C. Botella, G. Grenet, J. Gazquez, M. Bugnet, Q. d'Acremont, S. Dilhaire, P.O. Chapuis, S. Pailhès, G. Saint-Girons, R. Bachelet
CNRS GDRe thermal nanosciences and nanoengineering conference, October 11-12 2018, Lyon (France)

125. Lateral diamond Schottky diodes on heteroepitaxial substrate
J. Letellier, E. Gheeraert, D. Eon, G. Saint-Girons, R. Bachelet, L. Mehmel, R. Issaoui, A. Tallaire, J. Achard, I. Stenger, J. Barjon, K. H. Lee, J. Delchevalrie, N. Tranchant, S. Saada, J. C. Arnault
SBDD XXIII Hasselt Diamond Workshop, march 7-9 2018, Hasselt (Belgium)

126. Nanoscale insights into the synthesis of GaAs core / shell nanowires for water splitting applications through in situ heating in the TEM
L. Fouquat, X. Guan, C. Chevalier, G. Saint-Girons, G. Grenet, J. Penuelas, and M. Bugnet
19th International Microscopy Congress, Sept. 9-14 2018, Sydney (Australia)

127. Chemical integration of functional oxide nanostructured thin films on silicon with excellent physical properties
J. M. Vila-Fungueiriño, R. Bachelet, G. Saint-Girons, C. Magen, A. Gomez, J. Gazquez, N. Mestres, F. Rivadulla, M. Gich, A. Carretero-Genevrier
EMRS 2018 Spring meeting, 18-22 june 2018, Strasbourg (France)

128. Thermoelectric perovskite-oxide epitaxial films grown by MBE
D. Han, M. Bouras, R. Moalla, C. Botella, A. Benamrouche, G. Grenet, B. Canut, R. Debord, V. Giordano, S. Pailhès, G. Saint-Girons, R. Bachelet
EMRS 2019 Spring meeting, 27-31 may 2019, Nice (France)

129. P-type thermoelectric $LaCrO_3$-based epitaxial thin films grown by MBE
D. Han, M. Bouras, C. Botella, A. Benamrouche, G. Saint-Girons, R. Bachelet
EMRS 2019 Spring meeting, 27-31 may 2019, Nice (France)

130. Perovskite oxide based hyperbolic epitaxial superlattices grown by oxide molecular beam epitaxy
M. Bouras, D. Han, S. Cueff, R. Bachelet, G. Saint-Girons
EuroMBE 2019, 17-20 february 2019, Lenggries (Germany)

131. Nucleation of heteroepitaxial diamond films: toward in situ characterization of domain formation
J. Delchevalrie, G. Saint-Girons, R. Bachelet, S. Saada, J. C. Arnault
ICDCM 2019 conference, 8-12 september 2019, Seville (spain)

132. Epitaxial 33°Y-oriented $LiNbO_3$ films for Silicon Technology
A. Bartasyte, S. Oliveri, S. Margueron, R. Bachelet, G. Saint-Girons, D. Albertini, B. Gautier, A. Borzi, F. Pierre, M. Bousquet, A. Reinhardt, P. Boulet, E. Blanquet
Joint IEEE ISAF-EMF-ICE-IWPM-PFM meeting, 14-19 july 2019, Lausanne (Switzerland)

133. Integration of $Li_4Ti_5O_{12}$ Thin Films on Silicon for Intercalation-based Solid State Devices
S.D. Lacey, E. Gilardi, C. Merckling, G. Saint-Girons C. Botella, D. Pergolesi & M. El Kazzi
EMRS 2020 Spring meeting, ***cancelled***

134. Coherent orientation of size-selected FeRh clusters deposited on crystalline $BaTiO_3$
A. Reyes-Contreras, V. Dupuis, D. Le-Roy, L. Bardotti, A. Tamion, G. Saint-Girons, R. Bachelet, I. C. Infante, G. Renaud, A. Resta, L. E. Díaz-Sánchez and F. Tournus
Cluster meeting 2021, May 19-14 2021, Prague (Tchec Republic)

135. Ferroelectric Properties Dependence on Thickness in Epitaxial La-Doped HfO_2 Films
T. Song, R. Bachelet, G. Saint-Girons, I. Fina, F. Sánchez
EMRS Fall 2021, September 20-23 2021, virtual

136. Enhanced Ferroelectric Properties of Epitaxial La-Doped $Hf_{0.5}Zr_{0.5}O_2$ Thin Films
T. Song, R. Bachelet, G. Saint-Girons, R. Solanas, I. Fina, F. Sánchez
ISAF-ISIF-PFM 2021, May 16-21 2021, virtual

137. Integration of $Li_4Ti_5O_{12}$ Thin Films on Silicon towards High-Rate Performance Microbatteries
S.D. Lacey, E. Gilardi, E. Müller, C. Merckling, G. Saint-Girons, C. Botella, R. Bachelet, D. Pergolesi, M. El Kazzi
Swiss Battery Days 2021, February 15-17 2021, virtual

138. Sb_2S_3 thin film for tunable nanophotonic devices: phase switching mechanisms and thin film characterization
C. Laprais, L. Berguiga, N. Baboux, B. Fornacciari, C. Botella, A. Moreau, J. Lumeau, G. Saint Girons and S. Cueff
META 2022 conference, July 19-22 2022, Torremolinos, (Spain)

139. Giant thermoelectric tuning by epitaxial strain of p-type Sr-doped $LaCrO_3$ transparent thin films
D. Han, R. Moalla, I. Fina, V.M. Giordano, M. d'Esperonnat, C. Botella, G. Grenet, R. Debord, S. Pailhès, G. Saint-Girons R. Bachelet
EMRS 2022 Spring Meeting, May 30 – June 3 2022, virtual

140. Towards p-type MBE-grown $SrTi_{1-x}Al_xO_3$ films for thermoelectric applications
M. d'Esperonnat, C. Adessi, C. Botella, A. Lamirand, B. Canut, G. Saint- Girons, R. Bachelet
EMRS 2022 Spring Meeting, May 30 – June 3 2022, virtual

141. Ferroelectric La-Doped HfO_2 Epitaxial Thin Films
T. Song, H. Tan, R. Bachelet, G. Saint-Girons, N. Dix, I. Fina, F. Sánchez
ISAF 2022 conference, June 27 – July 1 2022, Tours (France)

142. Optical switch of Sb_2S_3 phase change material for tunable nanophotonic applications
C. Laprais, L. Berguiga, G. Saint Girons, N., S. Cueff
EMRS 2023 Spring meeting, May 29 – June 2 2023, Strasbourg (France)

143. Reversible optical switch of Sb_2S_3 thin films for tunable nanophotonic applications
C. Laprais, L. Berguiga, N. Baboux, G. Saint-Girons, S. Cueff
MRS 2023 Spring meeting, April 10-14 2023, San Francisco (USA)

144. Optical switch of Sb_2S_3 for tunable nanophotonics
C. Laprais, L. Berguiga, C. Zruonba, J. Bouvier, N. Baboux, G. Saint-Girons, S. Cueff
E\PCOS 2023, September 17-20 2023, Roma (Italy)

145. Reconfigurable SiGe waveguide using Sb_2S_3 phase-change material in the mid-IR
A. Biegański, M. Perestjuk, R. Armand, A. Della Torre, C. Laprais, G. Saint-Girons, V. Reboud, J.M. Hartmann, J.H. Tortai, A. Moreau, J. Lumeau, A. Mitchell, T. Nguyen, C. Monat, S. Cueff and C. Grillet
CLEO 2024, may 5-10 2024, Charlotte (USA)

146. Laser Induced Reversible Phase Transition of Sb_2S_3 for Tunable Nanophotonics
C. Laprais, L. Berguiga, C. Zrounba, J. Bouvier, N. Baboux, G. Saint-Girons, S. Cueff
CLEO 2024, may 5-10 2024, Charlotte (USA)

147. Absorption profile of a MBE atomic beam measured with TDLAS
R. Rousseau, J. Morville, C. Botella, G. Saint-Girons
FLAIR 2024, september 16-20 2024, Assisi (Italy)

148. Electrical switch of phase change materials: toward the control of crystallinity for multi-level reconfigurable nanophotonics
C. Laprais, N. Baboux, L. Berguiga, G. Saint-Girons and S. Cueff
SPIE Optics and Photonics 2024, August 18-22 2024, San Diego (USA)

149. Giant tuning of transport properties and orbital switching by epitaxial strain in Sr-doped $LaCrO_3$ thin films
C D. Han, A.D. Lamirand, C. Furgeaud, C. Botella, G. Saint-Girons, I. Fina, V.M. Giordano, R. Debord, S. Pailhès, Y. Joly, P. Schoeffmann, P. Ohresser, R. Bachelet
iWOE30 conference, September 29 – October 2 2024, Darmstadt (Deustchland)

150. Continuum-source cavity-enhanced optical flux monitoring to control thin layer deposition processes
R. Rousseau, C. Botella, J. Morville, L. Berguiga, M. Bounab, C. Furgeaud, R. Bachelet and G. Saint-Girons
CSW 2024 conference, June 3-6 2024, Lund (Sweden)

151. Programmable Multilevel Nanophotonics with Chalcogenide Phase-Change Materials
F. Bentata, C. Laprais, L. Berguiga, N. Baboux, G. Saint-Girons, X. Letartre and S. Cueff
SPIE Photonics West 2024 conference, January 27-February 02 2024, San Francisco (USA)

152. Electrical switch of phase change materials: toward the control of crystallinity for multi-level reconfigurable nanophotonics
C. Laprais, N. Baboux, L. Berguiga, G. Saint Girons, and S. Cueff
SPIE Optics and Photonics 2024, August 18-22 2024, San Diego (USA)

153. $LaCoO_3$ epitaxial thin films for advanced thermoelectric applications
T. Zhu, A.D. Lamirand, C. Furgeaud, C. Botella, A. Benamrouche, B. Fornacciari, B. Canut, P. Regreny, G. Saint-Girons, R. Bachelet
EMRS conference, may 26-30 2025, Strasbourg (France) prix meilleur poster

154. Nanoimprint lithography of low-loss phase-change materials: Towards large-scale reconfigurable nanophotonics
F. Bentata, M. Mraouni, C. Chevalier, L. Berguiga, X. Letartre, T.T. Nguyen, C. Laprais, N. Baboux, G. Saint-Girons, H.S. Nguyen, S. Monfray, P. Genevet, S. Cueff
E\PCOS conference, September 23-26 2025, Marseille (France)

155. Epitaxial growth of LaCoO3 thin films by MBE
T. Zhu, A. D. Lamirand, C. Furgeaud, C. Botella, A. Benamrouche, P. Regreny, G. Saint-Girons, R. Bachelet
EuroMBE conference, march 9-13 2025, Auron (France)

156. Strong optical anisotropy in epitaxial SrO(SrTiO3)n Ruddlesden–Popper thin layers
M. Bounab, C. Furgeaud, S. Cueff, L. Berguiga, R. Bachelet, M. Bouras, L. Largeau, G. Saint-Girons
EuroMBE conference, march 9-13 2025, Auron (France)

157. Towards p-type thermoelectric LaCoO3–based epitaxial thin films
T. Zhu, A. D. Lamirand, C. Furgeaud, C. Botella, A. Benamrouche, B. Fornacciari, B. Canut, P. Regreny, G. Saint-Girons, S. Pailhès, R. Bachelet
ECT25 conference, September 8-12 2025, Nancy (France)

Interventions dans des conférences/workshops nationaux/sans actes

1. Epitaxie en Phase Vapeur aux Organo-Métalliques et caractérisation de boîtes quantiques InAs/GaAs pour les applications laser à 1,3 µm
G. Saint-Girons, G. Patriarche, L. Largeau, J. Coelho, A. Mereuta, J.M. Gérard, I. Sagnes
COLOQ7 Rennes (2001)

2. Laser 1.55 µm à émission par la surface accordable en longueur d'onde
J.L. Leclerq, P. Régrény, P. Viktorovitch, I. Sagnes, G. Saint-Girons, C. Mériadec, A. Mereuta, A. Plais, J. Jacquet
Journées Nationales de la Micro et de l'Optoélectronique, Aussois, 2001.

3. Boîtes quantiques d' In(Ga)As sur GaAs par EPVOM – Etude de la formation des îlots
Y. Chriqui, G. Saint-Girons, G. Patriarche, J-M. Moison, et I. Sagnes
Action Spécifique Boîtes Quantiques, Rennes (France), Mai 2002

4. Croissance de boîtes quantiques d'In(Ga)As/GaAs par EPVOM sur pseudo-substrat de Ge/Si (100) pour la réalisation de composants émettant à 1,3 µm
Y. Chriqui, G. Saint-Girons, G. Patriarche, J-M. Moison, S. Bouchoule, I. Sagnes, O. Kermarrec, Y. Campidelli, et D. Bensahel
Journées Nationales de Micro et Optoélectronique (JNMO), Saint-Aygulf (France), 29 Septembre-2 Octobre 2002

5. Emission laser continue à 1.5µm d'un VCSEL en cavité externe pompé optiquement réalisé par EPVOM en une seule étape d'épitaxie
C. Symonds, I. Sagnes, A. Garnache, S. Hoogland, G. Saint-Girons, A.C. Tropper and J.-L. Oudar
Journées Nationales de Micro et Optoélectronique (JNMO), Saint-Aygulf (France), 29 Septembre-2 Octobre 2002.

6. Photodétection proche infrarouge et électromodulation de l'absorption interbande et intrabande avec des boîtes quantiques auto-assemblées Ge/Si
P. Boucaud, M. El kurdi, S. Sauvage, G. Fishman, O. Kermarrec, Y. Campidelli, D. Bensahel, G. Saint-Girons, G. Patriarche, I. Sagnes
Journées Nationales de Micro et Optoélectronique (JNMO), Saint-Aygulf (France), 29 Septembre-2 Octobre 2002

7. Etudes optiques de laser accordable à base de microcavité opto mécanique
A. Bakouboula, T. Benyattou, J.L. Leclercq, O. Regreny, P. Viktorovitch, I. Sagnes, G. Saint-Girons, S. Bouchoule, A. Plais, J. Jacquet
Journées Nationales de Micro et Optoélectronique (JNMO), Saint-Aygulf (France), 29 Septembre-2 Octobre 2002

8. Boîtes quantiques d'In(Ga)As/GaAs épitaxiées par EPVOM pour l'émission à 1,3 µm : croissance et lasers
G. Saint-Girons et I. Sagnes
Action Spécifique STIC « Boîtes Quantiques pour télécommunications optiques », 24 Mai 2002 à Rennes.

9. Boîtes quantiques Ge/Si pour télécommunications optiques
P. Boucaud, M. El kurdi, S. Sauvage, G. Fishman, V. Le Thanh, D. Bouchier, O. Kermarrec, Y. Campidelli, D. Bensahel, G. Saint-Girons, G. Patriarche, I. Sagnes
Communication invitée, Action spécifique STIC "Boîtes quantiques pour télécommunications optiques", Rennes 24 Mai 2002.

10. Photodétection et électromodulation proche infrarouge avec des îlots auto-assemblés Ge/Si insérés dans des guides d'onde SiGe et silicium sur isolant
M. El kurdi, P. Boucaud, S. Sauvage, G. Fishman, O. Kermarrec, Y. Campidelli, D. Bensahel, G. Saint-Girons, G. Patriarche, I. Sagnes
Journées IV-IV – grenoble 13-15 Janvier 2003.

11. Boîtes quantiques d'InGaAs/GaAs épitaxiées par EPVOM : pour l'émission à 1,3 µm : propriétés structurales et optiques et étude de lasers à émission par la tranche
G. Saint-Girons, G. Patriarche et I. Sagnes,
Journées IV-IV – grenoble 13-15 Janvier 2003.

12. Photodétection et électromodulation proche infrarouge avec des îlots auto-assemblés Ge/Si insérés dans des guides d'onde SiGe et silicium sur isolant
M. El kurdi, P. Boucaud, S. Sauvage, G. Fishman, O. Kermarrec, Y. Campidelli, D. Bensahel, G. Saint-Girons, G. Patriarche, I. Sagnes
Journée Boîtes quantiques 2003, LPN marcoussis 26 Juin 2003

13. Croissance de boîtes quantiques d'In(Ga)As/GaAs par EPVOM sur pseudo-substrat de Ge/Si (100) pour la réalisation de composants émettant à 1,3 µm
Sagnes, D. Bensahel, S. Bouchoule, Y. Campidelli, Y. Chriqui, O. Kermarrec, J-M. Moison, G. Patriarche, G. Saint-Girons
4èmes Journées "Hétérostructures à semiconducteurs IV-IV", 1ères Journées "Composants Micro et Nano-électroniques", Grenoble (France), Janvier 2003

14. Etude de la croissance par EPVOM et des propriétés optiques de boîtes quantiques d'In(Ga)As/GaAs sur pseudo-substrat de Ge/Si (100) non désorienté
Y. Chriqui, G. Saint-Girons, G. Patriarche, J-M. Moison, S. Bouchoule, I. Sagnes, O. Kermarrec, Y. Campidelli, et D. Bensahel
Journées Nationales du Réseau Doctoral de Microélectronique (JNRDM), Toulouse (France), 13-18 mai 2003

15. Optimisation du GaAs pour la croissance par EPVOM de boîtes quantiques d'In(Ga)As/GaAs pour l'émission à 1,3µm sur Ge/Si (100)
Y. Chriqui, G. Saint-Girons, G. Patriarche, J-M. Moison, I. Sagnes, O. Kermarrec, Y. Campidelli, et D. Bensahel,
Journée Nationale des Boîtes Quantiques, Marcoussis (France), 26 Juin 2003

16. Optimisation du GaAs pour la croissance par EPVOM de boîtes quantiques d'In(Ga)As/GaAs pour l'émission à 1,3µm sur Ge/Si (100)
Y. Chriqui, G. Saint-Girons, G. Patriarche, J-M. Moison, I. Sagnes, O. Kermarrec, Y. Campidelli, et D. Bensahel
Congrès de la Société Française de Physique, Lyon (France), 7-10 Juillet 2003

17. Vers l'organisation d'îlots In(Ga)As grâce à un réseau de dislocations sous-jacentJ. Coelho, G. Patriarche, C. Mériadec, C. David, I. Sagnes, G. Saint-Girons, A. Lemaître, L. Largeau, F. Glas.
Congrès de la Société Française de Physique, Lyon (France), 7-10 Juillet 2003

18. Réduction de la durée de vie des porteurs dans un puits quantique près de la surface
C. Symonds, J. Mangeney, I. Sagnes, G. Saint-Girons, K. Meunier et S. Bouchoule
Journées nationales de la micro-optoélectronique, 8-11 juin 2004, La Grande Motte (France)

19. Boîtes quantiques InAs/InP(001) émettant à 1.55 µm obtenues par épitaxie en phase vapeur aux organométalliques
A. Michon, G. Patriarche, I. Sagnes, G. Beaudoin and G. Saint-Girons
Journées « Matériaux Semiconducteurs pour Nanostructures » (GDR Nanoélectronique), Lille, 13-14 octobre 2005.

20. Boîtes quantiques InAs/InP(001) émettant à 1,55 µm réalisées par epitaxie en phase vapeur aux organométalliques
A. Michon, G. Patriarche, G. Beaudoin, Isabelle Sagnes, G. Saint-Girons
Journées Nationales de l'Optique Guidée, 8-10 novembre 2005, Chambéry

21. Croissance de nenostructures de Si, Ge et de III-V sur oxydes monocristallins pour l'intégration monolithique de nouvelles fonctions sur silicium
L. Arzel, M. Gendry, B. Gautier, G. Saint-Girons et G. Hollinger
Journées Nanosciences Rhône-Alpes, novembre 2005, Lyon

22. Imagerie des propriétés électroniques de boîtes quantiques InAs/InP(001) par microscopie à force atomique avec pointe conductrice
K. Smaali, M. Troyon, A. El Hdiy, M. Molinari, G. Saint-Girons, G. Patriarche, A. Michon, G. Beaudoin, I. Sagnes
Journées nationales de la micro-optoélectronique, 4-7 avril 2006, Aussois (France)

23. Boîtes et fils quantiques InAs/InP(001) émettant à 1,55 µm fabriqués par EPVOM
A. Michon, I. Sagnes, G. Patriarche, Grégoire Beaudoin and G. Saint-Girons
Journées nationales de la micro-optoélectronique, 4-7 avril 2006, Aussois (France)

24. Spectroscopie de boîtes quantiques uniques d'InAs/InP(001) réalisées par EPVOM à 1.55 µm
N. Chauvin, G. Brémond, C. Bru-Chevallier, G. Saint-Girons, A. Michon, G. Patriarche, G. Beaudoin, I. Sagnes
Journées nationales de la micro-optoélectronique, 4-7 avril 2006, Aussois (France)

25. Epitaxial growth of $LaAlO_3$ on Si(001) using interface engineering
C. Merckling, G. Delhaye, M. El-Kazzi, S. Gaillard, Y. Rozier, L. Rapenne, B. Chenevier, O. Marty, G. Saint-Girons, M. Gendry, Y. Robach, G. Hollinger
14th workshop on dielectrics in microelectronics, 26 to 28 june 2006, Catania (Italy)

26. Boîtes et fils quantiques InAs/InP(001) émettant à 1,55 µm fabriqués par EPVOM
A Michon, I. Sagnes, G. Patriarche, G. Beaudoin, et G. Saint-Girons
10èmes journées de la matière condensée (JMC10), August 28 to September 2 2006, Toulouse (France)

27. Heteroepitaxial growth of $SrTiO_3$ on Si(001) by molecular beam epitaxy
G. Delhaye, G. Saint-Girons, L. Largeau, G. Patriarche, C. Merckling, M. El Kazzi, M.Gendry, G. Hollinger, Y. Robach
Workshop "Silicon/oxide Hetero-Epitaxy: A New Road Towards A Si CMOS-Compatible Resonant Tunnel Diode Technology ?", 11-12 september 2006, Como (Italy).

28. Epitaxial growth of γ-Al_2O_3 and $LaAlO_3$ on silicon
C. Merckling, M. El-Kazzi, G. Delhaye, S. Gaillard, L. Becerra, L. Rapenne, B. Chenevier, O. Marty, L. Largeau, G. Patriarche, G. Grenet, M. Gendry, Y. Robach, G. Saint-Girons, G. Hollinger
Workshop "Silicon/oxide Hetero-Epitaxy: A New Road Towards A Si CMOS-Compatible Resonant Tunnel Diode Technology ?", 11-12 september 2006, Como (Italy).

29. Resonant Tunneling Diode Al_2O_3 / Si / Al_2O_3
L. Becerra, C. Merckling, Mario El-Kazzi, G. Saint-Girons, A. Poncet, L. Militaru, C. Plossu, P. Rojo Romeo, G. Hollinger
Workshop "Silicon/oxide Hetero-Epitaxy: A New Road Towards A Si CMOS-Compatible Resonant Tunnel Diode Technology ?", 11-12 september 2006, Como (Italy).

30. Oxydes à l'interface entre micro et optoélectronique
L. Largeau, G. Patriarche, G. Saint-Girons, P. Regreny, Cl. Merckling, G. Hollinger
Conference de la société française de microscopie, june 5-8 2007, Grenoble (France)

31. Projet d'Integration de nanofils III-V sur silicium
H. Dumont, M. Gendry, P. Rojo-Romeo, G. Saint-Girons, C. Bru-Chevallier
Workshop du GDR nanofils, may 9-11 2007, Ecully (France)

32. Epitaxial growth of "high-κ" oxides on silicon for advanced CMOS: $LaAlO_3$, Gd_2O_3, γ-Al_2O_3
C. Merckling, M. El-Kazzi, L. Becerra, G. Saint-Girons, G. Delhaye, G. Patriarche, L. Largeau, V. Favre-Nicolin, O. Marty, and G. Hollinger
International Workshop on functional oxides, march 16-19 (2008) – Autrans (France)

33. Mise en évidence par diffraction de photoélectrons de la déformation ferroélectrique de $BaTiO_3$ contraint sur $SrTiO_3$(001)
M. El Kazzi, G. Delhaye, G. Saint-Girons, C.Merckling, G. Grenet et G. Hollinger
International Workshop on functional oxides, march 16-19 (2008) – Autrans (France)

34. Epitaxie directe de $SrTiO_3$ (sans recuit post-dépôt) sur silicium
G. Niu, B. Vilquin, G. Delhaye, G. Saint-Girons, Y. Robach, G. Hollinger
International Workshop on functional oxides, march 16-19 (2008) – Autrans (France)

35. Caractérisation électrique d'oxydes à forte constante diélectrique épitaxiés sur Si(001) : évaluation pour applications MOSFET
L. Becerra, C. Merckling, M. El-Kazzi, N. Baboux, G. Saint-Girons, B. Vilquin, C. Plossu, G. Hollinger
International Workshop on functional oxides, march 16-19 (2008) – Autrans (France)

36. Etude de la croissance de boîtes quantiques d'InP sur $SrTiO_3$/Si
J. Cheng, G. Saint-Girons, P. Regreny, G. Patriarche, L. Largeau, C. Priester, V. Favre-Nicolin, G. Grenet et G. Hollinger
International Workshop on functional oxides, march 16-19 (2008) – Autrans (France)

37. Molecular Beam Epitaxy of InP quantum dots on $SrTiO_3$/Si(001) crystalline buffers
J. Cheng, G. Saint-Girons, P. Regreny, G. Grenet, Y. Robach, M. Gendry, G. Hollinger, G. Patriarche, Ludovic Largeau
JNMO 2008, June 3-6 2008 – Oléron (France)

38. Caractérisation d'interfaces oxyde/silicium par diffraction de photoélectrons
M. El Kazzi, C.Merckling, G. Delhaye, G. Saint-Girons, G. Grenet et G. Hollinger
Journées Surfaces Interfaces, January 28-30 2008 – Grenoble (France)

39. Study of the epitaxy of InP quantum dots on $SrTiO_3$/Si(001) crystalline buffers
J. Cheng, G. Saint-Girons, P. Regreny, G. Patriarche, L. Largeau, G. Grenet[1], Y. Robach and G. Hollinger
Keio Workshop, February 27-29 2008 – Ecully (France)

40. Imagerie STEM-HAADF d'interfaces de semi-conducteurs III-V sur oxydes cristallins
L. Largeau, G. Patriarche, G. Saint-Girons, J. Cheng, P. Regreny, G. Hollinger
Conférence de la société française de Microscopie, 22-26 juin 2009, Paris (France)

41. Epitaxy and characterization of crystalline high-k oxide on silicon by MBE.
G. Niu, B. Vilquin, G. Saint-Girons, L. Becerra, G. Delhaye, Y. Robach, G. Grenet and G. Hollinger
ECL-Keio Workshop, Ecole Centrale de Lyon, February 2009.

42. Intégration monolithique de matériaux III-V sur Si via un tampon d'oxyde high-k
J. Cheng, G. Saint-Girons, P. Regreny, G. patriarche, L. Largeau, P. Rojo-Romeo and G. Hollinger
12ème JNRDM, 17-19 mai 2009, Lyon (France)

43. Effect of the substrate on the nanowire crystalline quality : case of InP nanowires gorwn on Si, SrTiO3 and InP substrates.
H. Dumont, K. Naji, P. Regreny, G. Saint-Girons, G. Patriarche and M. Gendry.
Workshop du GDR "Nanofils et Nanotubes semiconducteurs", 30 juin au 3 juillet 2009, Autrans (France).

44. Epitaxie d'oxydes cristallins « high-k » sur silicium
G. Niu, B. Vilquin, G. Saint-Girons, C. Botella, G. Grenet, P. Regreny, M. Gendry, Y. Robach, G. Hollinger, N. Baboux, C. Plossu, B. Canut, B. Blein, S. Autier-Laurent, P. Lecouer, JL. Maurice
12ème JNRDM, 17-19 mai 2009, Lyon (France)

45. MBE growth of III-V nanostructures (quantum dots and nanowires) on silicon for photonics
M. Gendry, H. Dumont, K. Naji, Y. Robach, G. Saint-Girons, P. Rojo-Romeo, P. Regreny, R. Ray, C. Bru-Chevallier and G. Patriarche
ECL-Keio Workshop, Ecole Centrale de Lyon, February 2009.

46. Structural and chemical studies of epitaxial γ-Al_2O_3 thin films grown on Si(001) and Si(111) using XPD and synchrotron radiation photoemission
M. El-Kazzi, C. Merckling, G. Saint-Girons, G. Grenet, M. Silly, F. Sirotti and G. Hollinger
2010 SOLEIL user meeting, january 20-21, 2010, Ecole Polytechnique Palaiseau (France)

47. Semiconductor/oxide interfaces for monolithic integration of III-V and Ge on Si
B. Gobaut, G. Saint-Girons, J. Penuelas, G. Grenet, J. Cheng, A. Chettaoui, L. Largeau, G. Patriarche, M. El-Kazzi
International workshop and winter school : photoemission, February 21-27, 2010, Dijon (France).

48. Structural and optical properties of InP NWs grown on Si(001) by VLS-SSMBE
M. Gendry, K. Naji, H. Dumont, G. Saint-Girons, J. Penuelas, N. Chauvin, C. Bru-Chevallier and G. Patriarche
5th workshop on nanowire growth, november 4-5, 2010, Roma (Italy).

49. Epitaxie directe d'hétérostructures III-V sur silicium en utilisant des templates de $SrTiO_3$/Si.
A. Chettaoui, B. Gobaut, J. Penuelas, J. Cheng, G. Niu, L. Largeau, P. Regreny, G. Saint-Girons
13èmes journées Nano, Micro et Optoélectronique, septembre 28 to october 1st, 2010, Les Issambres (France).

50. Intégration monolithique de semiconducteurs III-V sur Si.
B. Gobaut, J. Penuelas, A. Chettaoui, J. Cheng, G. Grenet, G. Saint-Girons, L. Largeau and M. El-Kazzi
13èmes journées Nano, Micro et Optoélectronique, septembre 28 to october 1st, 2010, Les Issambres (France).

51. Forme, orientation et structure cristalline des nanofils d'InP crus sur Silicium par VLS-EJM
K. Naji, H. Dumont, G. Saint-Girons, N. Chauvin, C. Bru-Chevallier, M. Gendry and G. Patriarche
13èmes journées Nano, Micro et Optoélectronique, septembre 28 to october 1st, 2010, Les Issambres (France).

52. Dépôt par Jet Moléculaire de $LaAlO_3$ sur silicium pour les nœuds technologiques CMOS 22 nm : vers un contrôle parfait de l'hétéro-interface oxyde/silicium
S. Pelloquin
JNRDM 2010, 7-9 juin 2010, Montpellier (France).

53. Etude par photoémission de l'interface $Ge/SrTiO_3$
D. Ferrah, B. Gobaut, J. Penuelas, G. Grenet, G. Saint-Girons, M. El-Kazzi, M. Silly, F. Sirotti, J. Avila, I. Razado Colambo et M.C. Asensio
25ème journées surfaces et interfaces, 26-28 janvier 2011, Poitiers (France)

54. Size, shape and epitaxy of Ge nanodots on STO studied by grazing incidence X-ray diffraction
B. Gobaut, J. Penuelas, N. Blanc, V. Favre-Nicolin, G. Renaud and G. Saint-Girons
9ème colloque Rayons X et Matière, 28/11-01/12 2011, Tours (France).

55. Présentation à mi-Parcours du projet COMPHETI
G. Saint-Girons
J3N 2011, november 7-9 (2011), Strasbourg (France)

56. Ge sur $SrTiO_3$: adhésion et mouillage
B. Gobaut, J. Penuelas, G. Grenet and G. Saint-Girons
Workshop "adhésion-collage-mouillage" du GDR MECANO, 6-7 octobre 2011, Ecully (France).

57. Epitaxy of piezoelectric $Pb(Zr,Ti)O_3$ (PZT) film on silicon for energy harvesting
R. Bachelet, A. Borowiak, B. Gautier, Q. Liu, L. Louahadj, C. Malhaire, O. Marconot, G. Niu, J. Penuelas, J. Pezard, M. Piquemal, Y. Robach, P. Rojo-Romeo, G. Saint-Girons, B. Vilquin
Colloque 2012 de l'UMI LN2, 15 au 18 juillet 2012, Sherbrooke (Canada)

58. Etude par photoémission de l'interface $Ge/SrTiO_3$
B. Gobaut, J. Penuelas, D. Ferrah, G. Grenet, G. Saint-Girons, M. El-kazzi, M. Silly, F. Sirotti, J. Avila, I. Razado Colambo, M.-C. Asensio
Journées Surfaces et interfaces 2012, 25-27 janvier 2012, synchrotron SOLEIL, L'Orme des Merisiers (France)

59. Epitaxial perovskite oxides on silicon for thermal energy harvesting in monolithic nanoelectronic devices
R. Bachelet, L. Louahadj, G. Niu, C. Dubourdieu, J. Penuelas, B. Vilquin, G. Saint-Girons
Réunion du GDR Thermoélectricité, 05-06 décembre 2012, Lyon

60. Présentation du projet COMPHETI
G. Saint-Girons
J3N 2012, nov.7-9 2012, Bordeaux (France)

61. Croissance de $SrTiO_3/Si$: réactivité de l'interface et impact sur les propriétés structurales de la couche épitaxiée
L. Louahadj, G. Niu, R. Bachelet, C. Chaix, G.Saint-Girons
Conference JMC 2012, august 27-31 (2012), Montpellier (France)

62. Les développements de l'épitaxie par jets moléculaires pour la croissance d'oxydes pérovskites sur silicium
P. Regreny, C. Botella, J.B. Goure, L. Louahadj, R. Bachelet, C. Chaix, G. Saint-Girons
Colloque annuel du GDR pulse, 3-5 juillet 2013, Aix en Provence (France)

63. Monolithic integration of functional oxides on GaAs
D. Le Bourdais, G. Agnus, P. Regreny, P. Lecoeur, L. Largeau, V. Pillard, P. Gogol, R. Bachelet, L. Louahadj, C. Dubourdieu and G. Saint-Girons
Journées nationales des technologies émergentes, 21-23 mai 2013, Evian les Bains (France).

64. Oxide films and nanostructures on silicon for thermal energy harvesting in microelectronic devices
R. Moalla, A. Carretero-Genevrier, L. Mazet, L. Louahadj, J. Penuelas, B. Vilquin, C. Dubourdieu, G. Saint-Girons, R. Bachelet
Réunion du GDR Thermoélectricité, 9-10 décembre 2013, Nancy (France)

65. Croissance de Pt sur la couche mince d'oxyde Gd2O3 (111) épitaxie sur Si(111) : Etude par photoémission
D. Ferrah, G. Grenet, Y. Robach, Q. Liu, L. Louahadj, J. Penuelas, G. Niu, G. Saint-Girons, B. Vilquin
Journées surfaces et interfaces, 20 janvier – 1 février 2013, Orléans (France)

66. Resistive switching of HfO_2-based metal-insulator-metal devices
M. Minvielle, R. Bachelet, G. Saint-Girons, G. Ghibaudo, F. Alibart, C. Dubourdieu
CRIEC 2014, june 1-5 2014, Ecole Centrale de Lyon, Ecully (France)

67. $BaTiO_3$ grown on Si (001) by Molecular Beam Epitaxy for low power field-effect devices
L. Mazet, R. Bachelet, L. Louahadj, D. Albertini, B. Gautier, G. Saint-Girons, C. Dubourdieu
28èmes Journées Surfaces et Interfaces, 29-31 Janvier 2014, Ecully, (France)

68. Ti-based interface engineering for heteroepitaxial growth of $SrTiO_3$ on GaAs
B. Meunier, L. Louahadj, G. Grenet, C. Botella, P. Regreny, R. Bachelet, J. Penuelas, G. Renaud, G. Saint-Girons
28èmes Journées Surfaces et Interfaces, 29-31 Janvier 2014, Ecully, (France)

70. $BaTiO_3$ grown on Si and SOI by molecular beam epitaxy for nanoelectronics
L. Mazet, R. Bachelet, L. Louahadj, D. Albertini, B. Gautier, G. Saint-Girons, C. Dubourdieu
13èmes Journées de Caractérisation Microondes et Matériaux, 24-26 Mars 2014, Nantes, (France)

71. Systèmes épitaxiés combinant oxydes et semiconducteurs
G. Saint-Girons, J. Penuelas, A. Danescu, B. Gobaut, A. Chettatoui, G. Grenet,G. Renaud, V. Favre Nicolin, N. Blanc, T. Zhou, M. El-Kazzi, M. Silly and F. Sirotti
Atelier nucléation du GDR PULSE, 7-8 avril 2014, CRHEA, Valbonne, (France).

72. Epitaxial Growth of Ferroelectric Pb(Zr,Ti)O_3 thin Layers on $SrTiO_3$-templated GaAs/InGaAs quantum well structure for opto-mechanical application
B. Meunier, L. Louahadj, D. Le Bourdais, L. Largeau, N. Chauvin, G. Agnus, P. Lecoeur, V. Pillard, R. Bachelet, P. Regreny, C. Botella, G. Grenet and G. Saint-Girons
Workshop "Les oxydes pour l'optique et la photonique", 8-9 décembre 2014, Meudon, (France).

73. Epitaxial growth by molecular beam epitaxy of ferroelectric $BaTiO_3$ on silicon
L. Mazet, R. Bachelet, G. Saint-Girons, S. Yang, S. Kalinin, M. Hÿtch, S. Schamm-Chardon, C. Dubourdieu
Workshop "Les oxydes pour l'optique et la photonique", 8-9 décembre 2014, Meudon, (France).

74. Electro-optic modulation using hybrid silicon-ferroelectric oxide slot waveguide
S. Cueff, X. Hu, R. Orobtchouk, P. Rojo Romeo, R. Bachelet, B. Vilquin, C. Dubourdieu, P. Regreny, C. Botella, G. Grenet, G. Saint-Girons, P. Castera, N. Sanchez, T. Angelova, L. Bellieres, A. Griol, A. M. Gutierrez, P. Sanchis
Workshop "Les oxydes pour l'optique et la photonique", 8-9 décembre 2014, Meudon, (France).

75. Capping and decapping GaAs nanowires with As for preventing oxidation and for epitaxial shell growth
X. Guan, J. Becdelievre, N. Benali, C. Botella, G. Grenet, P. Regreny, M. Gendry, G. Saint-Girons, J. Penuelas
8èmes Entretiens pour la Recherche Beihang-GEC, 21-22 mai 2015, Ecole Centrale Marseille, (France)

76. Epitaxial La-doped $SrTiO_3$-based films of enhanced ZT
M. Apreutesei, P. Regreny, G. Saint-Girons, C. Botella, G. Grenet, A. Carretero-Genevrier, J. Gazquez, P. O. Chapuis, R. Debord, S. Pailhès, R. Bachelet
Réunion du GDR thermoélectricité, 13-14 octobre 2015, CRYSMAT (Caen)

77. Epitaxial Growth of Ferroelectric Pb(Zr,Ti)O_3 thin Layers on SrTiO3-templated GaAs/InGaAs quantum well structure for opto-mechanical application
B. Meunier, L. Louahadj, D. Le Bourdais, L. Largeau, N. Chauvin, G. Agnus, P. Lecoeur, V. Pillard, R. Bachelet, P. Regreny, C. Botella, G. Grenet and G. Saint-Girons
ISOE 2015 summer school, 12-24 octobre 2015, Cargese, (France)

78. $SrTiO_3$ thin layers on Si: epitaxy and use as templates for thermal energy management and photonic integrated devices
S. Cueff, M. Apreutesei, R. Moalla, B. Meunier, X. Hu, G. Grenet, J. Penuelas, P. Regreny, C. Botella, A. Carretero, R. Orobtchouk, P. Rojo-Romeo, B. Vilquin, N. Baboux, M. Silly, F. Sirotti, J. Gazquez, P.O. Chapuis, R. Debord, S. Pailhès, R. Bachelet and G. Saint-Girons
JNTE 2015, 18-20 novembre 2015, Lyon, (France)

79. $SrTiO_3$/GaAs epitaxial templates: role of Ti at the interface, and application to the fabrication of novel opto-mechanical devices
B. Meunier, R. Bachelet, G. Grenet, C. Botella, P. Regreny, L. Largeau, J. Penuelas and G. Saint-Girons
JSI 2015, 28-30 janvier 2015, Toulouse, (France)

80. Chemical Solution Deposition of Functional Oxide thin Films and Nanostructures on Silicon
J. M. Vila-Fungueiriño, R. Bachelet, G. Saint-Girons, M. Gendry, M. Gich, J. Gazquez, E. Ferain, F. Rivadulla, J. Rodriguez-Carvajal, N. Mestres and A. Carretero-Genevrier
Workshop Nano-nano 2015, 15-16 juin 2015, Lyon, (France)

81. Nanofils coeur GaAs coquille P(VDF-TrFe)
J. Becdelièvre, G. Xuan, N.P. Blanchard, P. Vincent, P. Regreny, P. Rojo-Romeo, B. Vilquin, M. Gendry, A. Danescu, B. Gautier, D. Albertini, G. Saint-Girons, J. Penuelas
Workshop Nano-nano 2015, 15-16 juin 2015, Lyon, (France)

82. Emetteurs quantiques et matériaux commutables pour le contrôle dynamique de composants nanophotoniques
S. Cueff, R. Orobtchouk, P. Rojo-Romeo, G. Saint-Girons, X. Letartre
Workshop Nano-nano 2015, 15-16 juin 2015, Lyon, (France)

83. Oxide nanostructures for thermoelectricity
M. Apreutesei, R. Moalla, G. Grenet, G. Saint-Girons, S. Pailhès, A. Carretero-Genevrier, R. Bachelet
Workshop Nano-nano 2015, 15-16 juin 2015, Lyon, (France)

84. GaAs nanowires with oxidation-proof As cap for the growth of epitaxial shell
X. Guan, J. Becdelievre, A. Benali, C. Botella, G. Grenet, H. Dumont, P. Regreny, G. Saint-Girons, M. Gendry, J. Penuelas
Workshop Nano-nano 2015, 15-16 juin 2015, Lyon, (France)

85. Core-shell nanowires for piezotronics
J. Becdelievre, X. Guan, N.P. Blanchard, P. Vincent, P. Regreny, P. Rojo-Romeo, B. Vilquin, M. Gendry, A. Danescu, B. Gautier, D. Albertini, G. Saint-Girons, J. Penuelas
PULSE summer school 2015, 14-18 septembre 2015, Porquerolles, (France)

86. Integration of $BaTiO_3$ epitaxial ferroelectric on semiconductors: growth parameters and tetragonality at the nanoscale
S. Schamm-Chardon, C. Magen, L. Mazet, R. Cours, R. Bachelet, G. Saint-Girons, M. Hÿtch, and C. Dubourdieu
Workshop OXYFUN/MECANO “strain in oxydes”, 16-17 avril 2015, Leuven (Belgique)

87. Mechanical characterization of core (GaAs) - shell nanowires
J. Becdelievre, X. Guan, A. Viera Silva, N.P Blanchard, P. Vincent, A. Danescu, P. Regreny, P. Rojo-Romeo, B. Vilquin, M. Gendry, G. Grenet, B. Gautier, D. Albertini, G. Saint-Girons, J. Penuelas
Réunion du GDR Mecano, 1-2 octobre 2015, Toulouse, (France)

88. $SrTiO_3$/Si templates: growth mechanism and application to on-chip thermal energy management and integrated photonics
R. Bachelet, B. Meunier, R. Moalla, S. Cueff, M. Apreutesei, L. Louahadj, G. Grenet, J. Penuelas, P. Regreny, C. Botella, R. Orobtchouk, P. Rojo-Romeo, B. Vilquin, N. Baboux, A. Carretero-Genevrier, M. Silly, F. Sirotti, J. Gazquez, P.O. Chapuis, R. Debord, S. Pailhès, B. Canut, G. Saint-Girons
JNMO 2016, 30 mai – 1er juin 2016, Les Issambres, (France).

89. GaAs nanowires with oxidation-proof arsenic capping/decapping method for the growth of an epitaxial Shell
X. Guan, J. Becdelievre, A. Benali, C. Botella, G. Grenet, H. Dumont, N. Chauvin, P. Regreny, G. Saint-Girons, M. Gendry, J. Penuelas
Journées Surfaces-Interfaces 2016, 27-29 janvier 2016, Marseille (France)

90. $SrTiO_3$ thin layers on Si: epitaxy and use as templates for thermal energy management and photonic integrated devices
R. Bachelet, B. Meunier, R. Moalla, S. Cueff, M. Apreutesei, X. Hu, G. Grenet, J. Penuelas, P. Regreny, C. Botella, A. Carretero-Genevrier, R. Orobtchouk, P. Rojo-Romeo, B. Vilquin, N. Baboux, M. Silly, F. Sirotti, J. Gazquez, P.O. Chapuis, R. Debord, S. Pailhès and G. Saint-Girons
Colloque annuel du GDR PULSE, 18-22 juillet 2016, Marseille (France).

91. Thermoelectric properties of (La,Sr)TiO_3 epitaxial films deposited by MBE
M. Apreutesei, P. Regreny, G. Saint-Girons, C. Botella, G. Grenet, A. Carretero-Genevrier, J. Gazquez, P. O. Chapuis, R. Debord, G. Bouzerar, S. Pailhès, R. Bachelet
Réunion du GIS Thermoélectricité, 24-25 novembre 2016, Lyon (France)

92. Perovskite oxide engineering using Molecular Beam Epitaxy
M. Bouras, R. Bachelet, G. Saint-Girons
ISOE 2017 summer school, 11-21 avril 2017, Cargese (France)

93. GaAs Core / SrTiO3 Shell Nanowires Grown by Molecular Beam Epitaxy
X. Guan, J. Becdelievre, G. Saint-Girons, R. Bachelet, P. Regreny, C. Botella, G. Grenet, N. P. Blanchard, M. Gendry, J. Penuelas
J2N 2017, 13-15 novembre 2017, Grenoble (France)

94. Perovskite oxides grown by MBE for integrated thermoelectricity
M. Apreutesei, R. Debord, M. Bouras, D. Han, P. Regreny, C. Botella, G. Grenet, Q. d'Acremont, S. Dilhaire, P.O. Chapuis, S. Pailhès, G. Saint-Girons, R. Bachelet
Journées Nationales de la Thermoéletricité, 6 au 7 décembre 2017, Montpellier (France)

95. Combining physical and chemical processes to add new functionalities in epitaxial oxides on silicon
J. M. Vila-Fungueriño, A. Gomez, J. Gazquez, C. Magen, G. Saint-Girons, R. Bachelet, A. Carretero-Genevrier
Congrès AFC 2018, 10-13 juillet 2018, Lyon (France)

96. Phases Ruddlesden-Popper $Sr_{n+1}Ti_nO_{3n+1}$ hyperboliques épitaxiées par MBE
M. Elhachmi Bouras, R. Bachelet, D. Han, S. Cueff, G. Saint-Girons
Congrès AFC 2018, 10-13 juillet 2018, Lyon (France)

97. Indefinite permittivity in $Sr_{n+1}Ti_nO_{3n+1}$ Ruddlesden-Popper thin layer grown by molecular beam epitaxy
M. Bouras, S. Cueff, L. Pedesseau, R. Bachelet, D. Han, L. Largeau, J. Even and G. Saint-Girons
Journées Nano-Micro-Optoélectronique, 13-15 juin 2018, Agay (France)

98. Engineering the properties of functional oxides and integrating them on Si and GaAs thanks to molecular beam epitaxy
M. Bouras, S. Cueff, L. Pedesseau, J. Even; R. Bachelet, D. Han, J. Penuelas, G. Grenet, P. Regreny, N. Chauvin, L. Largeau, G. Saint-Girons
Journées nationales du GDR OXYFUN, 21-23 mars 2018, Piriac sur mer (France)

99. Oxides grown by MBE for integrated thermoelectricity
D. Han, M. Bouras, M. Apreutesei, R. Debord, R. Moalla, P. Regreny, C. Botella, G. Grenet, J. Gazquez, M. Bugnet, S. Dilhaire, P.O. Chapuis, S. Pailhès, G. Saint-Girons, R. Bachelet
3eme rencontre du LRA en Nanothermique Lyonnais, 23 mars 2018, Lyon (France)

100. Hybrid core - shell nanowires grown by molecular beam epitaxy
J. Penuelas, T. Dursap, L. Fouquat, M. Vettori, X. Guan, C. Botella, P. Regreny, N. Chauvin, R. Bachelet, G. Saint-Girons, A. Danescu, G. Grenet, M. Bugnet, G. Patriarche, M. Gendry
Congrès CNano 2018, 11-13- décembre 2018, Toulon (France)

101. Système d'analyse RHEED adapté au contrôle de la croissance de couches minces d'oxydes fonctionnels et de nanofils III-V
C. Botella, M. Bouras, T. Dursap, D. Han, M. Vettori, R. Bachelet, J. Penuelas, M. Gendry et G. Saint-Girons
Atelier du GDR PULSE, october 01-03, 2018, Toulouse, France.

102. Hétérostructures à base de nanofils III-V
J. Penuelas, X. Guan, J. Becdelièvre, L. Fouquat, P. Regreny, M. Gendry, G. Saint-Girons, R. bachelet, A; Danescu, C. Botella, G. Grenet
Journées surfaces et interfaces, 01 janvier 2018, Strasbourg (France)

103. Perovskite-Oxide Based Hyperbolic Metamaterials
M. Bouras, D. Han, S. Cueff, R. Bachelet and G. Saint-Girons
Journées « couches minces d'oxydes fonctionnels et applications en électronique et photonique » du GDR OXYFUN, 1-2 octobre 2019, Caen (France)

104. $(La,Sr)TiO_3/SrTiO_3$ superlattices as hyperbolic metamaterials
M. Bouras, D. Han, S. Cueff, R. Bachelet and G. Saint-Girons
Conference plénière du GDR PULSE, 1-4 juillet 2019, Clermont-Ferrand (France)

105. Localized oxide MBE growth on Si by selective etching lift-off for on-chip thermoelectricity
R. Moalla, D. Han, G. Saint-Girons, J.-L. Leclercq, and R. Bachelet
JNTE 2019, 25-27 novembre 2019, Grenoble (France)

106. Functional oxide based epitaxial metamaterials in the NIR-MIR
G. Saint-Girons, S. Cueff, R. Bachelet, M. Bouras
Rencontres du Moyen Infrarouge, 22 october 2019, Rennes (France)

107. P-type thermoelectric $LaCrO_3$-based epitaxial films grown by MBE
D. Han, M. d'Esperonnat, M. Bouras, R. Moalla, C. Botella, A. Benamrouche, G. Grenet, B. Canut, R. Debord, V. Giordano, S. Pailhès, G. Saint-Girons and R. Bachelet
JNTE 2020, 18-19 november 2020, Lille (France) ***cancelled***

108. Solid solutions and superlattices of perovskite oxides for enhanced thermoelectricity
M. d'Esperonnat, D. Han, R. Moalla, M. Razaghi, C. Botella, B. Canut, N. Baboux, G. Saint-Girons, R. Bachelet
Journées Nationales du GDR OXYFUN, 2020 Guétary (France) ***cancelled***

109. Superlattices and Ruddlesden-Popper phases to engineer the optical properties of perovskite oxides
M. Razaghi, M. d'Esperonnat, M. Bouras, D. Han, S. Cueff, R. Bachelet and G. Saint-Girons
Journées Nationales du GDR OXYFUN, 2020 Guétary (France) ***cancelled***

110. Tuning transport properties by epitaxial strain in p-type Sr-doped LaCrO3 transparent thin films grown by MBE
D. Han, R. Moalla, I. Fina, V.M. Giordano, M. d'Esperonnat, C. Botella, G. Grenet, R. Debord, S. Pailhès, G. Saint-Girons, and R. Bachelet
Workshop virtuel sur l'épitaxie des oxydes (EPIDOX), November 17-19th, 2021

111. Sensitive RHEED signature of Ti-excess enabling enhanced cationic composition control during the molecular beam epitaxy of SrTiO3 based solid solutions
M. Razaghi, M. d'Esperonnat, C. Botella, S. Cueff, R. Bachelet and G. Saint-Girons
Workshop virtuel sur l'épitaxie des oxydes (EPIDOX), November 17-19th, 2021

112. Epitaxie et orientations préférentielles de nanoparticules de FeRh préformées par vaporisation laser et déposées sur BaTiO3 ou SrTiO3
F. Tournus, G. Herrera-Huerta, D. Le Roy, V. Dupuis, A. Reyes, I. Cañero-Infante, G. Saint-Girons, R. Bachelet, A. Resta, L. Martinelli, X. Weng, G. Renaud
Conférence de l'AFC, June 29 – July 2, 2021, Grenoble (France)

113. Epitaxy and interfacial coupling of FeRh nanoparticles deposited on BaTiO3 or SrTiO3 surfaces
F. Tournus, G. Herrera-Huerta, D. Le Roy, V. Dupuis, C. Raton, A. Reyes, I. Cañero-Infante, P. Rojo-Romeo, B. Vilquin, G. Saint-Girons, R. Bachelet, A. Resta, P. Ohresser, E. Otero, L. Martinelli, X. Weng, G. Renaud
JMC 2021, august 24-27 2021, Rennes (France)

114. Tuning thermoelectric properties by epitaxial strain in p-type Sr-doped $LaCrO_3$ thin films
D. Han, R. Moalla, I. Fina, V. Giordano, M. d'Esperonnat, C. Botella, G. Grenet, R. Debord, S. Pailhes, G. Saint-Girons and R. Bachelet
1st Japan-France virtual workshop on thermoelectrics, September 27-30 2021, vitual

115. Sb_2S_3 thin film for tunable nanophotonic devices: phase switching mechanisms and thin film characterization
C. Laprais, L. Berguiga, G. Saint Girons, N. Baboux, S. Cueff
1ères Journées Scientifiques du GDR CHALCO, june 20-21 2022, Dijon (France)

116. $SrTi_{1-x}Al_xO_3$ thin films epitaxially-grown by MBE for thermoelectric applications
M. d'Esperonnat, C. Adessi, C. Botella, G. Saint-Girons, R. Bachelet
Journées Nationales du GDR OXYFUN, April 1-8, 2022 Guéthary, (France)

117. Pyroelectric and thermoelectric epitaxial oxide layers for thermal energy harvesting
R. Moalla, D. Han, M. d'Esperonnat, C. Botella, B. Vilquin, N. Baboux, G. Saint-Girons, R. Bachelet
Journées Nationales du GDR OXYFUN, April 1-8, 2022 Guéthary, (France)

118. Structural disorder in SrTiO3 based Ruddlesden-Popper phases
C. Furgeaud, A. Danescu, R. Bachelet, L. Largeau, M. Bouras and G. Saint-Girons
CNANO conference 2023, March 15-17, 2023, Poitiers, (France)

119. Structural disorder in SrTiO3 based Ruddlesden-Popper phases
C. Furgeaud, A. Danescu, R. Bachelet, L. Largeau, M. Bouras and G. Saint-Girons
Conférence 2023 du GDR MATEPI, 3-6 juillet 2023, Paris (France)

120. La diffraction des photoélectrons X (XPD) comme sonde locale dans des hétérostructures épitaxiées
C. Botella, R. Bachelet, J Penuelas, I. Dudko, D. Han, R. Moalla, G. Saint-Girons, A. Lamirand et G. Grenet
JNSPE 2023, 31 mai-2 juin 2023, Sophia-Antipolis (France)

121. Optically switched Sb2S3 low loss phase change material for reconfigurable nanophotonic
C. Laprais, L. Berguiga, C. Zrounba, J. Bouvier, N. Baboux, G. Saint-Girons, S. Cueff
2èmes journées thématiques du GDR Chalco, 6-7 juin 2023, Bordeaux (France)

122. Advanced optical flux monitoring to control thin layer deposition processes
R. Rousseau, C. Botella, J. Morville, L. Berguiga, M. Bounab, C. Furgeaud, R. Bachelet and G. Saint-Girons
Workshop OSEPI 2024, 13-17 mai 2024, Frejus (France)

123. Pioneer operando curvature stress measurement during BaTiO3 thin film epitaxy by RF magnetron sputtering
C. Furgeaud, R. Rousseau, M. Bounab, P. Regreny, C. Botella, A. Danescu, R. Bachelet, G. Saint-Girons
Workshop OSEPI 2024, 13-17 mai 2024, Frejus (France)

124. Determination of the anisotropic dielectric function of epitaxial SrO(SrTiO3)n Ruddlesden–Popper structures (n=1,…5)
M. Bounab, C. Furgeaud, S. Cueff, R. Bachelet, M. Bouras, G. Saint-Girons
Workshop OSEPI 2024, 13-17 mai 2024, Frejus (France)

125. Towards smart growth of functional materials with on-demand properties?
C. Furgeaud, M. Bounab, C. Botella, P. Regreny, R. Rousseau, G. Saint-Girons, R. Bachelet
Journées plénières du GDR IAMAT, 2-5 juillet 2024, Toulouse (France)

126. Advanced oxide MBE @ INL
R. Bachelet, C. Furgeaud, P. Regreny, R. Rousseau, M. Bounab, T. Zhu, C. Botella, J.B. Goure and G. Saint-Girons
Journées scientifiques du PEPR Electronique, 18-21 mars 2025, Paris (France)

127. Strong optical anisotropy in epitaxial $SrO(SrTiO_3)_n$ Ruddlesden–Popper thin layers
M. Bounab, C. Furgeaud, S. Cueff, L. Berguiga, R. Bachelet, M. Bouras, L. Largeau, G. Saint-Girons
ISOE summer school, 8-18 juillet 2025, Cargese (France)

128. $LaCoO_3$ epitaxial thin films for advanced thermoelectric applications
T. Zhu, A. D. Lamirand, C. Furgeaud, C. Botella, A. Benamrouche, B. Fornacciari, B. Canut, P. Regreny, G. Saint-Girons, R. Bachelet
ISOE summer school, 8-18 juillet 2025, Cargese (France)

129. Molecular beam epitaxy of $BaTiO_3$ assisted by broadband cavity-enhanced optical flux monitoring
M. Bounab, R. Rousseau, R. Bachelet, C. Botella, J. Morville, A. Benamrouche, C. Furgeaud, G. Saint-Girons
MATEPI summer school, 22-27 juin 2025, Porquerolles (France)

130. Towards smart growth of functional materials with on-demand properties?
C. Furgeaud, M. Bounab, T. Zhu, C. Botella, P. Regreny, R. Rousseau, G. Saint-Girons, R. Bachelet
workshop "Machine Learning methods for Chemistry and Physics", 2-5 juin 2025, Lyon (France)