

Romuald Houdré

[Book&Patents](#) [Thesis](#) [Invited](#) [Publications](#) [arXiv](#) [Conferences](#)

Edited books (1)

1. H. Benisty, J. M. Gérard, R. Houdré, J. Rarity, and C. Weisbuch, eds. *Confined Photon systems. Fundamentals and applications, lecture notes of QED phenomena and applications of microcavities and photonic crystals, Cargèse, Corsica, France, 1998*, Lectures notes in Physics **531** (Springer, Berlin, 1999).

Book sections (4)

4. R. Houdré, "Near Infrared Optical Characterization Techniques for Photonic Crystals," in *Photonic Crystals: Physics and Technology*, C. Sibilia, T. M. Benson, N. Marciniak, and T. Szoplik, eds. (Springer, Milano, 2008), pp. 173-192.
3. D. Labilloy, H. Benisty, C. Weisbuch, T. F. Krauss, C. J. M. Smith, R. M. De La Rue, D. Cassagne, C. Jouanin, R. Houdré, and U. Oesterle, "Measuring the optical properties of two-dimensional photonic crystals in the near-infrared," in *Confined Photon systems. Fundamentals and applications, lecture notes of QED phenomena and applications of microcavities and photonic crystals, Cargèse, Corsica, France, 1998*, Lectures notes in Physics **531**, H. Benisty, J. M. Gérard, R. Houdré, J. Rarity, and C. Weisbuch, eds. (Springer, Berlin, 1999), pp. 406-425.
2. C. Weisbuch, R. Houdré, and R. P. Stanley, "Microcavities and semiconductors: the strong coupling regime," in *Spontaneous Emission and Laser Oscillation in Microcavities*, W. Yokoyama, and K. Ujihara, eds. (CRC, New York, 1995), pp. 109-150.
1. C. Hermann, H. J. Drouhin, G. Lampel, Y. Lassailly, D. Paget, J. Peretti, R. Houdré, F. Ciccacci, and H. Riechert, "Photoelectronic processes in semiconductors activated to negative electron affinity," in *Spectroscopy of nonequilibrium electrons and phonons, Modern problems in solid state physics*, C. V. Shank, and B. P. Zakharchenya, eds. (Elsevier Science, 1992), pp. 397-460.

Patents (5)

5. R. Houdré, N. Linder, R. Stanley, C. Wiesmann, and R. Wirth, "Opto-electronic semiconductor chip for emitting electromagnetic radiation, has structure units arranged in statistical distribution with basic condition that distribution of distance of adjacent units has specific standard deviation", Application No Patent No. DE102008045028-A1; WO2010022694-A1.
4. B. Lombardet, R. Houdré, and L. A. Dunbar, "Optical condensing device including a photonic crystal", Europe, Application No 05001061.0, Patent No. EP 1 684 102 A1 (2005).
3. R. Houdré, V. Berger, and C. Weisbuch, "Semiconductor laser having a photonic bandgap material", USA, Application No Patent No. US00568817 (1997).
2. R. Houdré, C. Weisbuch, and V. Berger, "Laser à semiconducteurs à bande interdite photonique", Europe, Application No Patent No. EP 0 742 620 A1 (1995).
1. R. Houdré, V. Berger, J. P. Pocholle, and C. Weisbuch, "Laser à bande interdite photonique", France, Application No Patent No. SPCI#X006314, FR 9505990 (1995).

Thesis (1) ↑

1. R. Houdré, "Photoémission de puits quantiques et de superréseaux GaAs/GaAlAs en état d'affinité négative," (Paris-Sud, Orsay, 1985).

Invited communications (87)**2019**

88 R. Therisod, M. Tardif, P. R. Marcoux, E. Picard, E. Hadji, D. Peyrade, and R. Houdré, "Gram-type Differentiation of Optically Trapped Bacteria in a planar Hollow Photonic Crystal Cavities" 21st International Conference on Transparent Optical Networks (ICTON 2019), Angers, France, 2019, invited communication.

2018

87 M. S. A. Mohamed, Y. Lai, M. Minkov, V. Savona, A. Badolato, and R. Houdré, "Finite-size and disorder effects on slow-light propagation in an extended photonic crystal coupled-cavity waveguides with group-index bandwidth product exceeding 0.47" *20th International Conference on Transparent Optical Networks (ICTON 2018)*, Bucharest, Romania, 2018, invited communication.

86 A. Badolato, M. S. A. Mohamed, B. Gao, M. Minkov, R. W. Boyd, V. Savona, R. Houdré, and Y. Lai, "Ultra-wide-band slow light in chip-integrated nanophotonic structures" *SPIE Photonics West 2018*, San Francisco, USA, 2018, invited communication.

85 M. S. A. Mohamed, A. Simbula, J. F. Carlin, M. Minkov, D. Gerace, V. Savona, N. Grandjean, M. Galli, and R. Houdré, "Non-linear effects in high-Q Gallium Nitride photonic crystal cavities : continuous-wave second and third harmonic generation" *SPIE Optics + Photonics 2018*, San Diego, USA, 2018, invited communication.

2017

84 M. S. A. Mohamed, A. Simbula, J. F. Carlin, M. Minkov, D. Gerace, V. Savona, N. Grandjean, M. Galli, and R. Houdré, "Continuous-wave second and third harmonic generation in high-Q Gallium Nitride photonic crystal cavities on Silicon" *SPIE Optics+Optoelectronics*, Prague, Czech Republic, 2017, invited communication.

83 M. S. A. Mohamed, A. Simbula, J. F. Carlin, M. Minkov, D. Gerace, V. Savona, N. Grandjean, M. Galli, and R. Houdré, "Demonstration of Continuous-Wave Second and Third Harmonic Generation in High-Q Gallium Nitride Photonic Crystal Cavities" *19th International Conference on Transparent Optical Networks (ICTON 2017)*, Girona, Spain, 2017, invited communication.

82 Y. Lai, M. S. A. Mohamed, M. Minkov, B. Gao, R. W. Boyd, V. Savona, R. Houdré, and A. Badolato, "Demonstration of broadband slow light in genetically optimized Silicon based coupled-cavity waveguides with group-index bandwidth product exceeding 0.45" *8th International Conference on Metamaterials, Photonic Crystals and Plasmonics, META'17*, Incheon - Seoul, South Korea, 2017, invited communication.

81 Y. Lai, M. S. A. Mohamed, B. Gao, M. Minkov, R. W. Boyd, V. Savona, R. Houdré, and A. Badolato, "Large-scale integration of photonic crystal coupled-cavity waveguides with ultra-wide- band slow light" *Progress In Electromagnetics Research Symposium (PIERS 2017)*, St Petersburg, Russia, 2017, invited communication.

2016

80 M. Tonin, F. M. Mor, S. Jeney, L. Forró, and R. Houdré, "Analysis of the Brownian motion of singly trapped spheres in hollow photonic crystal cavities" *18th International Conference on Transparent Optical Networks (ICTON 2016)*, Trento, Italy, 2016, invited communication.

2015

79 M. Tonin, N. Descharmes, U. Dharanipathy, and R. Houdré, "Piégeage optique résonant dans des cavités creuses à cristaux photoniques" *Journées thématiques du GDR Ondes*, Dijon, France, 2015, invited communication.

78 R. Houdré, N. Vico Triviño, U. Dharanipathy, M. S. A. Mohamed, J. F. Carlin, and N. Grandjean, "Fabrication and characterization of integrated photonics structures on GaN-based photonic crystal membranes grown on silicon" *17th International Conference on Transparent Optical Networks (ICTON 2015)*, Budapest, Hungary, 2015, invited communication.

77 R. Houdré, M. Minkov, M. Tonin, U. Dharanipathy, and V. Savona, "Global optimization of very high-Q H0 photonic crystal nanocavity in silicon" *Photonics North*, Ottawa, Canada, 2015, invited communication.

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76 V. Savona, M. Minkov, U. Dharanipathy, M. Tonin, R. Houdré, A. Badolato, Y. Lai, S. Pirotta, G. Urbinati, D. Gerace, and M. Galli, "A new generation of optimized photonic crystal cavities" *11th International Symposium on Photonic and Electromagnetic Crystal Structures (PECS XI)*, Shanghai, PRC, 2014, invited communication.

75 R. Houdré, U. Dharanipathy, M. Minkov, M. Tonin, and V. Savona, "Global optimization of ultrahigh-Q H0 photonic crystal nanocavity in silicon" *16th International Conference on Transparent Optical Networks (ICTON 2014)*, Graz, Austria, 2014, invited communication.

2013

74 N. Descharmes, U. Dharanipathy, Z. Diao, M. Tonin, and R. Houdré, "Optical trapping and back-actions effects in hollow photonic crystal cavities" *Progress In Electromagnetics Research Symposium (PIERS 2013)*, Stockholm, Sweden, 2013, invited communication.

73 N. Descharmes, U. Dharanipathy, Z. Diao, M. Tonin, and R. Houdré, "Resonant optical trapping and back-action effects in a hollow photonic crystal cavity," *15th International Conference on Transparent Optical Networks (ICTON 2013)*, Carthagena, Spain, 2013 (ICTON Tech. Dig.), invited communication.

72 N. Descharmes, U. Dharanipathy, Z. Diao, M. Tonin, and R. Houdré, "Optical trapping and backaction in hollow photonic crystal cavities," *SPIE Optics + Photonics*, San Diego, USA, 2013, invited communication.

2012

71. N. Descharmes, U. Dharanipathy, Z. Diao, M. Tonin, and R. Houdré, "Single particle detection and self-trapping in hollow photonic crystal cavities integrated in a microfluidic environment," *14th International Conference on Transparent Optical Networks (ICTON 2012)*, Coventry, UK, 2012, invited communication.

2011

70. N. Le Thomas, and R. Houdré, "Contrôle dans le champ lointain du facteur de qualité de cavités à cristaux photoniques planaires," *Optique Marseille*, Marseille, France, 2011, invited communication.

69. N. Le Thomas, and R. Houdré, "Inhibition of the emission of electromagnetic modes of photonic crystal cavities with a top mirror," *13th International Conference on Transparent Optical Networks (ICTON 2011)*, Stockholm, Sweden, 2011, invited communication.

68. D. Sanvitto, M. De Giorgi, D. Ballarini, A. Amo, G. Tosi, F. Marchetti, M. H. Szymńska, S. Pigeon, V. G. Sala, E. Cancellieri, I. Carusoto, R. Hivet, F. Pisanello, G. Lemenager, R. Houdré, A. Lemaître, J. Bloch, E. Giacobino, C. Tejedor, L. Viña, C. Ciuti, A. Bramati, and G. Gigli, "Hydrodynamical phenomena in polariton condensates," *Lasers and Electro-Optics and European Quantum Electronics Conference (CLEO Europe - EQEC 2011)*, München, Germany, 2011, invited communication.

2010

67. N. Le Thomas, H. Zhang, J. Jágerská, and R. Houdré, "Numerical challenges posed by experimental investigations of the slow light regime in photonic crystal waveguides," *Photonics North*, Niagara Falls, Canada, 2010, invited communication.

66. J. Jágerská, H. Zhang, Z. L. Diao, N. Le Thomas, and R. Houdré, "Refractive Index Gas Sensing in a Hollow Photonic Crystal Cavity," *12th International Conference on Transparent Optical Networks (ICTON 2010)*, München, Germany, 2010 (ICTON Tech. Dig.), invited communication.

65. N. Le Thomas, and R. Houdré, "Impacts of losses and disorder on slow light photonic crystal structures," *Workshop on Photonics, Nearfield optics, Imaging. Topical meeting: Towards New Horizons for Photonics in Random Systems.*, Ecully, France, 2010, invited communication.

64. A. Amo, C. Adrados, S. Pigeon, J. Lefrère, C. Ciuti, I. Carusoto, R. Houdré, E. Giacobino, and A. Bramati, "Superfluidity of microcavity polaritons," *30th International Conference on the Physics of Semiconductors (ICPS)*, Seoul, Korea, 2010, invited communication.

2009

63. A. Amo, J. Lefrère, C. Adrados, E. Giacobino, A. Bramati, D. Sanvitto, F. P. Laussy, D. Ballarini, E. del Valle, M. D. Martin, C. Tejedor, L. Viña, S. Pigeon, C. Ciuti, I. Carusoto, R. Houdré, A. Lemaître, J. Bloch, D. N. Krizhanovskii, and M. S. Skolnick, "Superfluidity in polariton condensates," *11th International Conference on Optics of Excitons in Confined Systems (OECS11)*, Madrid, Spain, 2009, invited communication.

62. N. Le Thomas, J. Jágerská, H. Zhang, V. Zabelin, and R. Houdré, "Dispersion properties of photonic waveguide structures," *Photonics North*, Québec, Canada, 2009, invited communication.

61. N. Le Thomas, J. Jágerská, H. Zhang, V. Zabelin, and R. Houdré, "Limits of slow light in actual photonic crystal structures," *International Laser Physics Workshop (LPHYS'09)*, Barcelona, Spain, 2009, invited communication.

60. E. Giacobino, A. Amo, J. Lefrère, S. Pigeon, C. Adrados, C. Ciuti, I. Carusoto, R. Houdré, and A. Bramati, "Polaritons in a semiconductor microcavity: from quantum optics to quantum fluids," *International Laser Physics Workshop (LPHYS'09)*, Barcelona, Spain, 2009, invited communication.

59. N. Le Thomas, J. Jágerská, H. Zhang, and R. Houdré, "Light transport and limits of slow light in real photonic crystal structures in the presence of residual disorder," *11th International Conference on Transparent Optical Networks (ICTON 2009)*, Azores, Portugal, 2009 (ICTON Tech. Dig.), invited communication.

2008

58. N. Le Thomas, and R. Houdré, "K-space imaging of planar photonic crystals with Fourier optics," *Photonics Europe 2008*, Strasbourg, France, 2008, invited communication.

57. N. Le Thomas, and R. Houdré, "Below the light line Fourier space imaging of planar photonic crystals," *International Laser Physics Workshop (LPHYS'08)*, Trondheim, Norway, 2008, invited communication.

56. R. Houdré, N. Le Thomas, and J. Jágerská, "Characterisation of photonic crystal and nanophotonics devices with Fourier optics," *10th International Conference on Transparent Optical Networks (ICTON 2008)*, Athens, Greece, 2008 (ICTON Tech. Dig.), **2**, pp. 5-6, invited communication.

2007

55. R. Houdré, "Near Infrared Optical Characterization Techniques for Photonic Crystals," in *Photonic Crystals: Physics and Technology*, C. Sibilia, T. M. Benson, N. Marciniak, and T. Szoplik, eds. (Springer, Milano, 2008), pp. 173-192, notes of the invited lecture at *COST P11 Training School*, Warsaw, Poland, 2007.

54. N. Le Thomas, R. Houdré, M. Kotlyar, and T. F. Krauss, "High numerical aperture Fourier space imaging of planar photonic crystals," *Advances in Physics and Technology in Photonic Crystals, COST P11 Workshop*, Prague, Czech republic, 2007, invited communication.

53. N. Le Thomas, R. Houdré, M. V. Kotlyar, L. O'Faolain, T. F. Krauss, L. H. Frandsen, J. Fage-Pedersen, A. Lavrinenko, and P. I. Borel, "High numerical aperture real and Fourier space investigation of planar photonic devices operating below the light cone," *9th International Conference on Transparent Optical Networks (ICTON 2007)*, Rome, Italy, 2007 (ICTON Tech. Dig.), **2**, p. 12, invited communication.

52. M. Francardi, L. Balet, A. Gerardino, N. Chauvin, B. Alloing, C. Zinoni, C. Monat, L. H. Li, N. Le Thomas, R. Houdré, and A. Fiore, "Control of the spontaneous emission of single InAs quantum dots at 1.3 μm in point-defect photonic crystal nanocavities," *9th International Conference on Transparent Optical Networks (ICTON 2007)*, Rome, Italy, 2007 (ICTON Tech. Dig.), **4**, pp. 294-296, invited communication.

2006

51. R. Houdré, V. Zabelin, N. Le Thomas, L. A. Dunbar, M. V. Kotlyar, T. F. Krauss, and R. Brenot, "Polarization splitter devices based on planar photonic crystals," *Physics of photonic and metamaterials (PPCM)*, Brussels, Belgium, 2006, invited communication.

50. A. Fiore, C. Zinoni, B. Alloing, C. Monat, L. H. Li, N. Le Thomas, R. Houdré, L. Lunghi, M. Francardi, and A. Gerardino, "Telecom-wavelength single-photon sources from quantum dots in microcavities," *8th International Conference on Transparent Optical Networks (ICTON 2006)*, Nottingham, UK, 2006 (ESPC, NAON), **2**, pp. 235-236, invited communication.

2005

49. J. Martz, R. Ferrini, L. Zuppiroli, B. Wild, L. A. Dunbar, R. Houdré, F. Robin, and S. Anand, "Tuning the optical properties of planar photonic crystals by liquid crystal infiltration," *Optics and Photonics, SPIE annual meeting*, San Diego, USA, 2005 (SPIE proc.), **5926**, pp. 592601-592614, invited communication.

48. L. A. Dunbar, L. Sirigu, V. Moreau, G. Scalari, M. Giovannini, R. Ferrini, N. Hoyler, R. Houdré, and J. Faist, "Photonic Crystals for Far-Infrared Wavelength Quantum Cascade Lasers," *Annual meeting of the Swiss Physical Society*, Lausanne, Switzerland, 2005, invited communication.

47. L. A. Dunbar, V. Moreau, B. Lombardet, R. Houdré, L. Sirigu, M. Giovannini, and J. Faist, "Fabrication and optical characterization of photonic crystal quantum cascade lasers at terahertz

frequencies," *2005 Pacific Rim Conference on Lasers and Electro-Optics (CLEO Pacific 2005)*, Tokyo, Japan, 2005 (IEEE Conf. Proc.), pp. 1128-1129, invited communication.

2004

46. R. Houdré, "Experiment, modelling and optimisation of out of plane losses in planar photonic crystals," *Sixth international Conference on Transparent Optical Networks (ICTON 2004)*, Wroclaw, Poland, 2004, invited communication.

45. C. Weisbuch, E. Schwoob, S. Olivier, H. Benisty, A. Talneau, G. H. Duan, T. F. Krauss, C. J. M. Smith, R. Houdré, R. Ferrini, and M. Agio, "Towards real-world devices in InP-based PCs," *Photonic Crystal Materials and Devices II, Photonic West 2004*, San Jose, USA, 2004, A. Adibi, A. Scherer, and S. Y. Lin, eds. (SPIE Proc.), **5360**, pp. 77-90, invited communication.

44. H. Benisty, C. Weisbuch, S. Olivier, R. Houdré, R. Ferrini, D. Leuenberger, B. Wild, B. Lombardet, M. Qiu, S. Anand, M. Mulot, A. Karlsson, M. Swillo, B. Jazkorzynska, M. Agio, M. Kafesaki, C. M. Soukoulis, A. Talneau, M. Kamp, A. Forchel, J. Moosburger, T. Happ, G. H. Duan, C. Cuisin, J. P. Chandouineau, O. Drisse, F. Gaborit, L. Legouezigou, O. Legouezigou, F. Lelarge, F. Poingt, F. Pommereau, and B. Thedrez, "Low-loss photonic-crystal and monolithic InP integration : bands, bends, lasers, filters," *Photonic Crystal Materials and Devices II, Photonic West 2004*, San Jose, USA, 2004, A. Adibi, A. Scherer, and S. Y. Lin, eds. (SPIE Proc.), **5360**, pp. 119-128, invited communication.

43. J. Martz, L. Zuppiroli, F. Nüesch, B. Wild, B. Lombardet, L. A. Dunbar, R. Ferrini, R. Houdré, and M. Ilegems, "Infiltration of planar photonic crystals with liquid crystals," *Annual meeting of the Swiss Physical Society*, Neuchâtel, Switzerland, 2004, invited communication.

42. L. A. Dunbar, D. Leuenberger, B. Lombardet, B. Wild, R. Ferrini, R. Houdré, and M. Ilegems, "Planar photonic crystals: a new material for integrated photonic devices," *Annual meeting of the Swiss Physical Society*, Neuchâtel, Switzerland, 2004, invited communication.

41. C. Weisbuch, A. David, T. Fujii, C. Schwach, S. Denbaars, S. Nakamura, M. Rattier, H. Benisty, R. Houdré, R. Stanley, J. F. Carlin, T. F. Krauss, and C. J. M. Smith, "Recent results and latest views on microcavity LEDs," *8th Conference on Light-Emitting Diodes, Photonic West 2004*, San Jose, USA, 2004, S. A. Stockman, H. W. Yao, and E. F. Schubert, eds. (SPIE proc.), **5366**, pp. 1-19, invited communication.

2003

40. R. Houdré, R. Ferrini, L. A. Dunbar, D. Leuenberger, B. Lombardet, B. Wild, and M. Ilegems, "Planar photonic crystals: a new material for integrated photonic devices," *Third International Conference on advanced materials and Devices (ICAMD03)*, Jeju, Korea, 2003, invited communication.

39. R. Houdré, "State of the art low index contrast planar photonic crystals," *Fifth international Conference on Transparent Optical Networks (ICTON 2003)*, Warsaw, Poland, 2003, invited communication.

38. S. Anand, M. Mulot, R. Ferrini, R. Houdré, M. Kamp, and A. Forchel, "Towards realization of high quality 2D-photonic crystals in InP/(Ga,In)(As,P)/InP," *Fifth International Conference on Transparent Optical Networks (ICTON 2003)*, Warsaw, Poland, 2003, invited communication.

2002

37. R. Houdré, "Two dimensional photonic crystals for physics and integrated optics," *Journées de la société Suisse de Physique*, Lausanne, Switzerland, 2002, invited communication.

36. C. Weisbuch, H. Benisty, S. Olivier, R. Ferrini, and R. Houdré, "Harnessing losses of real-world 2D photonic crystals," *Fourth International Conference on Transparent Optical Networks (ICTON 2002)*, Warsaw, Poland, 2002, invited communication.

2001

35. R. Houdré, R. P. Stanley, U. Oesterle, and C. Weisbuch, "Linear response and Rayleigh scattering of cavity-polaritons," *Physica E* **11**, 198-204 (2001), *Rutherford Memorial Workshop on Semiconductor Nanostructures*, Queenstown, New Zealand, 2001, invited communication.

34. M. Rattier, H. Benisty, C. Weisbuch, C. J. M. Smith, T. F. Krauss, J. F. Carlin, R. P. Stanley, R. Houdré, and U. Oesterle, "Photonic crystal extractors," *Third Workshop on Photonic and Electromagnetic Crystal Structures (PECS III)*, St Andrews, Scotland, UK, 2001, invited communication.

33. R. Houdré, R. P. Stanley, U. Oesterle, C. Weisbuch, and E. Giacobino, "Angular resolved emission of cavity-polariton under resonant excitation," *Alaskan meeting on fundamental optical processes in semiconductors*, Girdwood, Alaska, USA, 2001, invited communication.

32. R. Houdré, R. P. Stanley, U. Oesterle, and C. Weisbuch, "Strong coupling regime and cavity-polariton in semiconductor microcavities," *10th International laser physics workshop*, Moscow, Russia, 2001, invited communication.

31. R. Houdré, R. P. Stanley, U. Oesterle, C. Weisbuch, and E. Giacobino, "CW linear and non linear properties of microcavities in the strong coupling regime," *7th Conference on optics and exciton in confined systems (OECS)*, Montpellier, France, 2001, invited communication.

Before 2000

30. R. Houdré, C. Weisbuch, R. P. Stanley, U. Oesterle, and M. Ilegems, "Linear and non-linear behavior of cavity polaritons," *Physica E* **7**, 625-630 (2000), 9th International Conference on Modulated Semiconductor Structures (MSS9), Fukuoka, Japan, 1999, invited communication.

29. C. Weisbuch, H. Benisty, and R. Houdré, "Overview of fundamentals and applications of electrons, excitons and photons in confined structures," *J. Luminesc.* **85**, 271-293 (2000), *3rd international conference on excitonic process in condensed matter*, Boston, USA, 1998, invited communication.

28. A. L. Bradley, J. P. Doran, J. Hegarty, R. P. Stanley, U. Oesterle, R. Houdré, and M. Ilegems, "Nonlinear reflectivity of strongly coupled exciton-photon systems under resonant and non-resonant pumping," *J. Luminesc.* **85**, 261-270 (2000), *3rd international conference on excitonic process in condensed matter*, Boston, USA, 1999, invited communication.

27. C. Weisbuch, H. Benisty, and R. Houdré, "Microcavities, photonic crystals and semiconductors: From basic physics to applications in light emitters," *International Journal of high speed electronics and systems* **10**, 339-354 (2000), *Workshop on future electronics*, Villard de Lans, France, 1999, invited communication.

26. R. Houdré, R. P. Stanley, U. Oesterle, and C. Weisbuch, "Physics and devices with semiconductor microcavities," *International school on quantum electronics, Nanoscale linear and non-linear optics*, Erice, Italy, 2000, M. Bertolotti, C. M. Bowden, and C. Sibilìa, eds. (American Institute of Physics, New York), **560**, pp. 198-219 (2001), invited lecture.

25. H. Benisty, S. Olivier, M. Rattier, C. Weisbuch, C. J. M. Smith, T. F. Krauss, R. M. De La Rue, R. Houdré, and U. Oesterle, "All-photonic-crystal coupled cavity and guide," *Conference on quantum electronics and laser science (CLEO/QELS 2000)*, San Francisco, USA, 2000, invited communication.

24. D. Labilloy, H. Benisty, C. Weisbuch, T. F. Krauss, C. J. M. Smith, R. M. De La Rue, D. Cassagne, C. Jouanin, R. Houdré, and U. Oesterle, "Measuring the optical properties of two-dimensional photonic crystals in the near-infrared," in *Confined Photon systems. Fundamentals and applications, lecture notes of QED phenomena and applications of microcavities and photonic crystals, Cargèse, Corsica, France, 1998, Lectures notes in Physics* **531**, H. Benisty, J. M. Gérard, R. Houdré, J. Rarity, and C. Weisbuch, eds. (Springer, Berlin, 1999), pp. 406-425, invited communication.
23. R. Houdré, R. P. Stanley, U. Oesterle, and M. Ilegems, "Recent results on sub-meV linewidth cavity-polariton," *Radiative Processes and Dephasing in Semiconductors*, Coeur d'Alène, USA, 1998, invited communication.
22. H. M. Gibbs, C. Ell, G. Khitrova, J. Prineas, T. R. Nelson, J. S. Park, E. Lee, R. Houdré, and S. W. Koch, "Linewidths of normal mode coupling microcavities," *Radiative Processes and Dephasing in Semiconductors*, Coeur d'Alène, USA, 1998, invited communication.
21. R. P. Stanley, R. Houdré, U. Oesterle, and M. Ilegems, "Coherent and Incoherent dynamics of strong coupling microcavities," *Quantum Electronics Conference (IQEC 98)*, San Fransisco, USA, 1998, invited communication.
20. D. Labilloy, H. Benisty, T. F. Krauss, U. Oesterle, and R. Houdré, "Issues in the control of guided waves by three-dimensional photonic bandgaps for optoelectronics," *Progress in Electromagnetism Research Symposium*, Nantes, France, 1998, invited communication.
19. R. Houdré, "Acoustic phonon scattering in sub-meV linewidth cavity-polariton," *Phantoms Strategic Domain Meetings (Phasdoms 98)*, Neuchatel, Switzerland, 1998, invited communication.
18. C. Weisbuch, H. Benisty, D. Labilloy, R. Houdré, R. P. Stanley, and M. Ilegems, "Confined electrons and photons - A domain where new physical phenomena, device concepts and widescale applications converge," *Nanoscale Science and Technology*, Toledo, Spain, 1997, N. Garcia, M. Nieto-Vesperinas, and H. Rohrer, eds. (NATO Advanced Research Workshop, Kluwer, Dordrecht), **348**, pp. 211-234 (1998), invited communication.
17. A. L. Bradley, J. P. Doran, T. Aherne, J. Hegarty, R. P. Stanley, R. Houdré, U. Oesterle, and M. Ilegems, "Nonlinear reflectivity of semiconductor microcavities in the weak- and strong-coupling regimes: Experiment and theory," *European Quantum Electronics Conference (CLEO/Europe-EQEC)*, Hamburg, Germany, 1996, invited communication.
16. R. Houdré, R. P. Stanley, C. Weisbuch, U. Oesterle, and M. Ilegems, "Quantum optics in semiconductor microcavities," *23rd International Conference on the Physics of Semiconductors (ICPS)*, Berlin, Germany, 1996 (World Scientific, Singapore), **4**, pp. 3071-3078 (1996), invited communication.
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