

Michel de LABACHELERIE

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Flash Resume

Born in Nov. 1959. Master of Engineering from « Ecole Supérieure d'Optique » - Orsay, in 1982. PhD from Orsay University in 1988. Appointed as a researcher at CNRS (Centre National de la Recherche Scientifique) since 1985.

1985 to 1992: « Chargé de Recherches » CNRS at Orsay University, working on laser diode systems for optical telecommunications and metrology. CNRS bronze award in 1989.

1993 to 1995: Stay in Japan.

. Associate researcher at « Tokyo Institute of Technology » during 2 years.

. Founder and first Director of the CNRS French-Japanese laboratory on Integrated Microsystems (LIMMS) at « The University of Tokyo » in 1995

1996 to 2003: Promoted as « Directeur de Recherches » at CNRS, at the LPMO laboratory in Besançon, in charge of the development of MEMS research. Responsible of the research group « Microfabrication & Microcomponents » at the « Franche-Comté Institute on Microtechniques ».

1998 to 2003: Member of the National French research evaluation Committee

1997 to 2003: Deputy Director of the LPMO laboratory (Besançon)

From 2004: Director of the « FEMTO-ST Institute » at Besançon, France (350 staff members with a wide research scope in « Engineering Sciences »).

Selected publications

10 selected papers in International Reviewed Journals

- 1) "An 850 nm semiconductor laser tunable over a 300 Å range", M. de Labachellerie, P.Cerez, Optics Comm., Vol.55(3), (1985), pp. 174-178.
- 2) "The Hyperfine structure of 2 and 4 eV levels in Uranium ", R.Avril, M.de Labachellerie, F.Viala, A.Petit, Journ. of Less-Common, Metals, 122, (1986), pp. 4753 .
- 3) "Ultra-Narrow $^{13}\text{C}_2\text{H}_2$ saturated absorption lines at 1.5 μm ", M. de Labachellerie, K.Nakagawa, M. Ohtsu, Optics Letters, Vol. 19 (11), (June 1,1994), pp. 840-842.
- 4) "High frequency stability laser at 1.5 μm using Doppler-free molecular lines", M. de Labachellerie, K. Nakagawa, Y.Awaji, M. Ohtsu, Optics Letters, Vol. 20 (6), (March 15,1995), pp. 572-574.
- 5) "Accurate optical frequency atlas of the 1.5 μm bands of acetylene", K. Nakagawa, M. de Labachellerie, Y. Awaji, M. Kourogi, Journ. Opt. Soc. America B, vol. 13, No. 12, pp. 2708-2714, Dec. 1996.
- 6) "Fabrication of a new highly symmetrical in-plane accelerometer-structure by anisotropic etching of (100) silicon", G. Schröpfer, S. Ballandras, M. de Labachellerie, P. Blind, Y. Ansel, Journal of Micromechanics and Microengineering 7 (1997) 71-78
- 7) "Compact evanescent optical switch and attenuator with electromechanical actuation", F. Chollet, M. de Labachellerie, H. Fujita, IEEE Journ. of Selected Topics in Quantum Electron., Vol. 5(1), (1999), pp. 52-59
- 8) « A micromachined connector for the coupling of optical waveguides and ribbon optical fibers »», M. de Labachellerie, N. Kaou, V. Armbruster, J.-C. Jeannot, P. Mollier, H. Porte, N. Devoldère, Sensors & Actuators, 2847, (2001), pp. 3954 – 3957
- 9) « Miniaturized pH biosensors based on electrochemically modified electrodes with biocompatible polymers », Boris Lakard , Guillaume Herlem , Michel de Labachellerie , William Daniau , Gilles Martin , Jean-Claude Jeannot , Laurent Robert and Bernard Fahy , Biosensors and Bioelectronics, Volume 19, Issue 6, 15 January 2004, Pages 595-606
- 10) « Fabrication of a miniaturized cell using microsystem technologies for electrochemical applications », B. Lakard, J.C. Jeannot, M. Spajer, G. Herlem, M. de Labachellerie, P. Blind, B. Fahys, Electrochimica Acta, Vol. 50, Issue 9, 1 March 2005, Pages 1863-1869.

2 selected Invited Papers at International Conferences

- 1) "Metrological lasers around 1.5 μm ", M. de Labachellerie, C.Latrasse, K.Nakagawa, M.Ohtsu, Proc. Intl. Symp. on Atomic freq. Standards and Coherent Quantum Electron., (Aug.18-20 1993), Nara, Japan, p.5-8.
- 2) "Mechatronics systems for optics, Microwaves and precision metrology applications", M. de Labachellerie, D. Collard, M. Hoummady, D. Chauvel, C. Bergaud, F. Chollet, H. Fujita, H. Kawakatsu, T. Masuzawa, Proc. 1st Europe-Asia Workshop on Mechatronics, Stuttgart, 29 Sept. 1995, pp. 27-30

Maria-Pilar BERNAL

Born the 30th of January 1970

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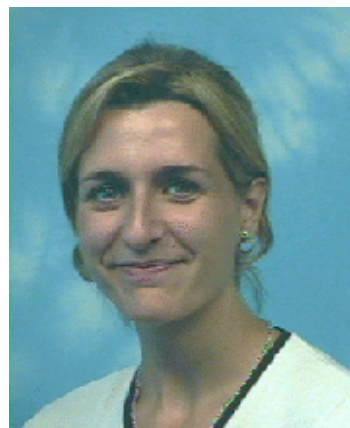
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Education:

1998: Ph.D. in Physics. IBM, Almaden Research Center, USA, and Universidad de Zaragoza, Spain.

1993: M.Sc. in Optics. Universidad de Zaragoza, Spain

1989-1993: B.Sc. in Physics. Universidad de Zaragoza, Spain

Languages:

Spanish: First language

English: Excellent knowledge both written and spoken (4 years working in the USA)

French: Excellent knowledge both written and spoken (French resident)

Professional experience:

From 01/10/2003 : Institut FEMTO-ST, Besançon (France). **Chargé de Recherche CNRS**

1/05/2003-31/07/2003 : Institut Non Linéaire de Nice. *Associate Researcher CNRS.*

1/11/2001-31/12/2001 : Institut Non Linéaire de Nice. *Vacataire CNRS.*

1998-2001: Institute of Applied Optics. Swiss Federal Institute of Technology (EPFL), Lausanne (Switzerland). *Postdoctoral position.*

1994-1998: IBM Almaden Research Center, California (USA). *Supplemental employee and Ph.D. student.*

1993-1994: Applied Physics Department, Universidad de Zaragoza (Spain). *Associate Professor.*

Awards and patents:

1. Two IBM awards
2. US Patent 6,281,993 B1. M.-P. Bernal, H. J. Coufal, R. K. Grygier, C. M. Jefferson, E. Oesterschulze, and K. F. Walsh. Phase shifting element for optical information processing storing systems.

ANNEXE

PUBLICATIONS:

- [1] N. Courjal, R. Ferriere, M.-P. Bernal, "Cristaux photoniques integers sur niobate de lithium" invited paper : Revue de l'Electricité et de l'Electronique (to appear).
- [2] M.-P. Bernal, N. Courjal, J. Amet, M. Roussey, C.H. Hou "Lithium niobate photonic crystal waveguides: Far field and near field characterisation ", Submitted to Optics Communications.
- [3] M. Roussey, M.-P. Bernal, N. Courjal, F.I. Baida, "Experimental and theoretical characterization of a lithium niobate photonic crystal", Appl. Phys. Lett. 87, 241101 (2005).
- [4] F. Lacour, N. Courjal, M.-P. Bernal, A. Sabac, C. Bainier, et M. Spajer, "Nanostructuring lithium niobate substrates by focused ion beam milling" Optical Materials, Vol 27/8, pp 1421-1425 (2005).
- [5] J. Salvi, M. Roussey, D. Van Labeke, F.I. Baida, M.-P. Bernal, A. Mussot, T. Sylvestre, H. Maillote, A. Perentes, I. Utke, M. Leutenegger, C. Sandu, P. Hoffmann, et B. Dwir, "Spectral analysis of light transmission through sub-wavelength annular apertures arrays in gold films: Opt. Lett. Vol 30 pp 1611-1613 (2005).
- [6] A. Perentes, I. Utke, B. Dwir, M. Leutenegger, T. Lasser, P. Hoffmann, F. Baida, M.-P. Bernal, M. Russey, J. Salvi and D. V. Labeke, *Fabrication of periodic sub-wavelength nano-structures in a 150nm thick gold layer on glass slides for optical studies*, Nanotechnology, Vol 16 pp s273-s277 (2005).
- [7] G. Genolet, M. Despont, P. Vettiger, U. Stauffer, W. Noell, N.F. de Rooij, T. Cueni, M.-P. Bernal, and F. Marquis-Weible, "Micromachined photoplastic probe for scanning near-field optical microscopy", Rev Sci. Inst. **72**, 3877-79 (2001).
- [8] L. Vaccaro, M.-P. Bernal, C. Duschl, and F. Marquis-Weible, "Shear force surface contrast on self-assembly monolayers", Appl. Phys. Lett. **77**, 3110-12 (2000).
- [9] O. Sqalli, M.-P. Bernal, P. Hoffmann, and F. Marquis-Weible, "Improved scanning near-field optical microscopy tip performance by the attachment of a single gold nano-particle," Appl. Phys. Lett. **76**, 2134-36 (2000).
- [10] R. K. Kostuk, M.-P. Bernal, and Q. Gao, "Beam conditioning techniques for holographic recording systems". In *Holographic Data Storage*. H. J. Coufal, D. Psaltis, and G. T. Sincerbox (Eds.) Optical Sciences, Springer Verlag (2000).
- [11] G. W. Burr and M.-P. Bernal "System optimizations for holographic data storage systems". In *Holographic Data Storage*. H. J. Coufal, D. Psaltis, and G. T. Sincerbox (Eds.) Optical Sciences, Springer Verlag (2000).
- [12] Ashley, M.-P. Bernal, G.W. Burr, H. Coufal, H. Guenther, J. Hoffnagle, C.M. Jefferson, B. Marcus, R. Macfarlane, R. Shelby, and G. Sincerbox, "Holographic data storage", IBM Journal of Research and Development, **44** (3), 341-68 (2000).
- [13] M.-P. Bernal, P.-Y. Boillat, P. Lambelet, and F. Marquis-Weible, "Theoretical and experimental study of the shear force between different SNOM probes and chemically treated AFM cantilevers", Proceedings of the IEEE, **88** (9), 1460-70 (2000). Invited paper.
- [14] M.-P. Bernal, G.W. Burr, H. Coufal, M. Quintanilla, "Balancing inter-pixel crosstalk and detector noise to optimize areal density ", Appl. Opt. **37**, 5377-85 (1998).
- [15] M.-P. Bernal, G.W. Burr, H. Coufal, J.A. Hoffnagle, C.M. Jefferson, R.M. Macfarlane, R.M. Shelby, and M. Quintanilla, "Experimental study of the effects of a six-level phase mask on a digital holographic storage system", Appl. Opt. **37**, 2094-101 (1998).

- [16] R.M. Shelby, J.A. Hoffnagle, G.W. Burr, C.M. Jefferson, M.-P. Bernal, H. Coufal, R.K. Grygier, H. Guenther, R.M. Macfarlane, and G.T. Sincerbox, "Pixel-matched holographic data storage with megabit pages", *Opt. Lett.* **22**, 1509-11 (1997).
- [17] M.-P. Bernal, G.W. Burr, H. Coufal, R.K. Grygier, J.A. Hoffnagle, C.M. Jefferson, E. Oesterschulze, R.M. Shelby, G.T. Sincerbox, and M. Quintanilla, "Effects of multilevel phase masks on interpixel cross talk in digital holographic storage", *Appl. Opt.* **36**, 3107-15 (1997).
- [18] R. Wortmann, P.M. Lundquist, R.J. Twieg, C. Geletneky, C.R. Moylan, Y. Jia, R.G. DeVoe, D.M. Burland, M.-P. Bernal, H. Coufal, R.K. Grygier, J.A. Hoffnagle, C.M. Jefferson, R.M. Macfarlane, R.M. Shelby, G.T. Sincerbox, "A novel sensitized photochromic organic glass for holographic optical storage", *Appl. Phys. Lett.* **69**, 1657-59 (1996).
- [19] M.-P. Bernal, G.W. Burr, H. Coufal, R.K. Grygier, J.A. Hoffnagle, C.M. Jefferson, R.M. Macfarlane, R.M. Shelby, G.T. Sincerbox, G. Wittmann, "Holographic data storage materials", *MRS Bull.* **21**, 51-60 (1996).
- [20] M.-P. Bernal, G.W. Burr, H. Coufal, R.K. Grygier, J.A. Hoffnagle, C.M. Jefferson, R.M. Macfarlane, R.M. Shelby, G.T. Sincerbox, P. Wimmer, G. Wittmann, "A Precision tester for studies of holographic optical storage materials and recording physics", *Appl. Opt.* **35**, 2360-74 (1996).
- [21] P.M. Lundquist, C. Poga, R.G. DeVoe, Y. Jia, W.E. Moerner, M.-P. Bernal, H. Coufal, R.K. Grygier, J.A. Hoffnagle, C.M. Jefferson, R.M. Macfarlane, R.M. Shelby, G.T. Sincerbox, "Holographic digital data storage in a photorefractive polymer", *Opt. Lett.* **21**, 890-92 (1996).
- [22] J. Ashley, M.-P. Bernal, M. Blaum, H. Coufal, H. Guenther, R.K. Grygier, J.A. Hoffnagle, C.M. Jefferson, R.M. Macfarlane, B. Marcus, R.M. Shelby, G.T. Sincerbox, and G. Wittmann, "Holographic optical data storage: promise and progress", *Laser Focus World*, 81-93, November 1996.
- [23] J.C. Martin, M.P. Bernal, "Double ring and Fabry-Perot ring resonators: application for an optical fiber laser", *Appl. Opt.* **33**, 4801-6 (1994).

CONFERENCE TALKS:

- [1] C.N. Borca, Y.E. Romanyuk, F. Gardillou, M. Pollnau, M.-P. Bernal, P. Moretti, « Optical channel waveguides in $KY(WO_4)_2 : Yb^{3+}$, CLEO, Long Beach 21-26 May, California (USA) 2006.
- [2] M.-P. Bernal, M. Roussey, F.I. Baida, N. Courjal, J. Amet, "Cristaux photoniques commandables en $LiNbO_3$ ", Journées nationales des cristaux pour l'optique JNCO, Valpré Ecully 12-14 December (2005)(**invited**).
- [3] M. Roussey, M.-P. Bernal, N. Courjal, "Tunable lithium niobate photonic crystals: experimental results and simulations", PECS-VI, Crete 19-24 June 2005
- [4] M.-P. Bernal, N. Courjal, M. Roussey, F.I. Baida, "Lithium niobate photonic crystals", Colloque International "LiNbO3 : du matériau au composant, du composant au système » Supélec, Campus de Metz, 23-25 mai 2005 (**invited**).
- [5] N. Courjal, M. Roussey, M.-P. Bernal, N.I. Baida, "Lithium niobate photonic crystals", ECIO'05: 12th European Conference on integrated optics, Grenoble, Avril 2005.
- [6] M.-P. Bernal, M. Roussey, J. Amet, N. Courjal, F.I. Baida, "Optical Characterisation of lithium niobate photonic crystals", ICONIC 2005, Barcelone, 12-14 Juin, 2005.
- [7] M.-P. Bernal, M. Roussey, N. Courjal, F.I. Baida, "Tunable lithium niobate photonic crystals", Photonics West 2005, San Jose, USA, 21-28 Janvier, 2005.

- [8] Y. Poujet, N. Courjal, M.-P. Bernal, F. Lacour, M. Spajer, C. Bainier, "LiNbO₃ photonic crystals: fabrication methods and SNOM Characterisation", NFO-8, Seoul, Korea, 5-9 Septembre, 2004.
- [9] F. Baida, J. Salvi, M.-P. Bernal, D. Van Labeke, B. Guizal, M. Roussey, A. Perentes, I. Utke, M. Leutenegger, C. Sandu, P. Hoffmann, B. Dwir, "Supertransmission through an annular aperture array: explanation of the transmission and first experimental results", NFO-8, Seoul, Korea, 5-9 Septembre, 2004.
- [10] A. Perentes, I. Utke, M. Leutenegger, C. Sandu, P. Hoffmann, B. Dwir, F. Baida, M.-P. Bernal, M. Roussey, J. Salvi, D. Van Labeke, "Fabrication of periodic sub-wavelength nano-structures in a 150 nm thick gold layer on glass slides for optical studies", Trends in Nanotechnology, Segovia, Spain, 13-17 Septembre, 2004.
- [11] M.-P. Bernal, C. Philipona, O. Sqalli, L. Vaccaro, and F. Marquis-Weible, "Microscopía de barrido en campo cercano," Sexta Reunión Nacional de Óptica, Medina del Campo, Espagne, 19-22 septembre, 2000.
- [12] Sqalli, M.-P. Bernal, P. Hoffmann, F. Marquis-Weible, "Improved tip performance for scanning near-field optical microscopy by the attachment of a single gold nano-particle", NFO-6, Twente, Pays-Bas, 27-31 août, 2000.
- [13] M.-P. Bernal, T. Cueni, G. Genolet, M. Despont, P. Vettiger, N.F. de Rooij, and F. Marquis-Weible, "Novel micromachined photoplastic near-field probes", NFO-6, Twente, Pays-Bas, 27-31 août, 2000.
- [14] L. Vaccaro, M.-P. Bernal, W.-P. Ulrich, C. Duschl, H. Vogel, and F. Marquis-Weible, "Shear-force contrast in Langmuir Blodgett monolayers probed by fluorescence near-field optical microscopy", NFO-6, Twente, Pays-Bas, 27-31 août, 2000.
- [15] L. Vaccaro, M.-P. Bernal, and F. Marquis-Weible, "Investigation of the shear force technique on functionalised surfaces," 18th General Conference of the condensed matter division of the European physical society, Montreux, Suisse, 13-17 mars, 2000.
- [16] M.-P. Bernal, F. Marquis-Weible, and P. Lambelet, "Theoretical and experimental study of the forces between different SNOM probes and chemically treated AFM cantilevers," Scanning probe microscopes and organic materials VIII, Basel, Suisse, 4-6 octobre, 1999.
- [17] M.-P. Bernal, G.W. Burr, H. Coufal, and M. Quintanilla, "Noise in High Areal Density Holographic Data Storage Systems", Conference on Lasers and Electro-Optics (CLEO'98), San Francisco, Californie, 3-8 mai, 1998.
- [18] M.-P. Bernal, G.W. Burr, H. Coufal, J.A. Hoffnagle, C.M. Jefferson, and R.M. Shelby, "M/# and BER in a 4f Holographic Data Storage System for Different Phase Plate Designs", Optical Society of America Annual Meeting, Long Beach, Californie, 12-17 octobre, 1997.
- [19] M.-P. Bernal, G.W. Burr, H. Coufal, M. Quintanilla, "Optimizing the CCD Fill Factor to Balance Inter-pixel Crosstalk and Thermal Noise in Holographic Data Storage", Optical Society of America Annual Meeting, Long Beach, Californie, 12-17 octobre, 1997.
- [20] J.A. Hoffnagle, M.-P. Bernal, G.W. Burr, H. Coufal, R.K. Grygier, H. Guenther, C.M. Jefferson, R.M. Macfarlane, R.M. Shelby, and P. Wimmer, "Megapixel Imaging for High-Performance Holographic Data Storage", CLEO 97, Baltimore, Maryland, 18-23 mai, 1997.
- [21] J. Ashley, M.-P. Bernal, M. Blaum, G.W. Burr, H. Coufal, R.K. Grygier, J.A. Hoffnagle, C.M. Jefferson, R.M. Macfarlane, B. Marcus, R.M. Shelby, and G.T. Sincerbox, "Experimental Study of Bit-Error-Rate (BER) in a Holographic Storage System", Optical Society of America Annual Meeting, Rochester, New York, 20-25 octobre, 1996.

[22] J. Ashley, M.-P. Bernal, M. Blaum, G.W. Burr, H. Coufal, R.K. Grygier, J.A. Hoffnagle, C.M. Jefferson, R.M. Macfarlane, B. Marcus, R.M. Shelby, and G.T. Sincerbox, "Error Studies of Digital Holographic Data Storage", CLEO, Anaheim, Californie, 02-07 juin, 1996.

[23] G.T. Sincerbox, H. Coufal, R.K. Grygier, J.A. Hoffnagle, C.M. Jefferson, R.M. Shelby, P. Wimmer, and M.-P. Bernal, "A Precision Teststand for Holographic Materials Evaluation: a Description of the Hardware and Capability of the Holographic Storage Teststand Developed for the PRISM Program", National Media Lab Workshop on Holographic Storage, Boulder, Colorado, 14-15 juin, 1995.

[24] R.M. Shelby, M.-P. Bernal, H. Coufal, J.A. Hoffnagle, C.M. Jefferson, R.K. Grygier, R.M. Macfarlane, G.T. Sincerbox, and P. Wimmer, "Defining Materials Limits to Holographic Data Storage: A Holographic Data Storage Tester", Optical Society of America Annual Meeting, Portland, Oregon 10-15 septembre, 1995.

Curriculum Vitae

Abdelkrim Khelif

December 15, 2005

Born on January 23, 1971, in Bouira, Algérie.
Married, 3 children.

Home address: 12 rue des paquerettes, 25000 Besançon, France.

Work address: Institut FEMTO-ST, département LPMO, CNRS UMR 6174, 32 avenue de L'Observatoire, 25044 Besançon cedex, France.

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Present position: full-time researcher (chargé de recherche CNRS).

Scientific areas of competence: phononic band gap materials, waves in solids and piezoelectrics, multiphysical interaction in micro-structure.

Thesis advisor (co-directeur de thèse) for 3 PhD students at FEMTO-ST.

1 Professional experience

- January 1994 - March 1998: preparation of the PhD degree at the University of Lille, Lille, France.
Dissertation title: Acoustic vibration and scattering proprieties of surface nanostructured.
- Mars - December 1998: Assistant professor in Department of physics at University of Lille.
- January 1999 - Decembre 2000: Information technologies Engineer at Institut universitaire de Formation des maitres, Villeneuve d'ascq , France.
- January 2000 - September 2002: Post-doc reserch position at Laboratoire de physique du solide, Namur, Belgium.
Specializing in Phononic crystal.
- Since October 2002: full-time researcher at the Centre National de la Recherche Scientifique (CNRS), Laboratoire de Physique et Métrologie des Oscillateurs (LPMO), Besançon, France.
I am conducting theoretical and experimental research on phononic band gap materials.

2 Education

- Master degree in Material science at university of Lille in November 1993.
- Docteur en science (PhD) in Material Science in March 1998, Lille University, France.

3 scientific production

- 32 papers in peer-reviewed international journals
- 1 patent
- 10 proceedings papers in international conferences

4 Publications list

This list is restricted to articles published in peer-reviewed international journals.

1. B. Djafari-Rouhani, L. Dobrzynski and A. Khelif Roughness induced surface acoustic resonances *Progress in Surface Science*, **48**, 301-311, (1995)
2. A. Khelif, B. Djafari-Rouhani and L. Dobrzynski Acoustic scattering by a wire deposited on a planar surface *Surface Science*, **354**, 1038-1042, (1996)
3. B. Djafari-Rouhani, A. Khelif, E.H. El boudouti, A. Akjouj and L. Dobrzynski Elastic vibrations of planar and deterministic rough surfaces. *Acta Physica Polonica A*, **89**, 192-197 (1996)
4. A. Khelif and B. Djafari-Rouhani Acoustic scattering by a supported wire. *Journal of Applied Physics* **81**, 1024 (1997)
5. B. Djafari-Rouhani and A. Khelif Localised and resonant acoustic waves associated with a periodic array of supported wires. *Vacuum* **54**, 309-313 (1999)
6. P.A. Deymier, A. Khelif, B. Djafari-Rouhani, J.O. Vasseur and S. Raghavan Theoretical calculation of the acoustic force on a patterned silicon wafer during megasonic cleaning. *Journal of Applied Physics*, Vol **88**, n 5, p-2423 (2000)
7. P.A. Deymier, J.O. Vasseur, A. Khelif, B. Djafari-Rouhani, and S. Raghavan Calculation of particle removal forces due to second-order sound field during megasonic cleaning of silicon wafers. *Journal of Applied Physics*, Vol **88**, p-6821 (2000)
8. A. Khelif, B. Djafari-Rouhani, Ph. Lambin Surface shear horizontal waves associated with a periodic array of quantum wires on a substrate *The European Physical Journal B* **21**, 437-445 (2001)
9. Ph. Lambin, A. Khelif, J. Vasseur, L. Dobrzynski, B. Djafari-Rouhani, Transmission of acoustic waves across sonic composite materials *Physical Review E*, **63**, 066605 (2001).
10. V. Laude, A. Khelif, Th. Pastureauud, S. Ballandras Generally polarized acoustic waves trapped by high aspect ratio electrode gratings on piezoelectric substrates *Journal of Applied Physics*, **90**, 2492 (2001)
11. P.A. Deymier, J.O. Vasseur, A. Khelif, S. Raghavan Second-order sound field during megasonic cleaning of patterned silicon wafers : application to ridges and trenches *Journal of Applied Physics*, **90**, 4211 (2001)
12. A. Khelif, P. A. Deymier, J.O. Vasseur, Ph. Lambin, B. Djafari-Rouhani Theory of acoustic scattering by supported ridges at a solid-liquid interface *Physical Review E*, **65**, 036601 (2002)

13. J. O. Vasseur, P. A. Deymier, A. Khelif, Ph. Lambin, B. Djafari-Rouhani, A. Akjouj, L. Dobrzynski, N. Fettouhi, and J. Zemmouri Phononic crystal with low filling fraction and absolute acoustic band gap in the audible frequency range: A theoretical and experimental study *Phys. Rev. E* **65**, 056608 (2002)
14. A. Khelif, B. Djafari-Rouhani, J. O. Vasseur, P. A. Deymier, Ph. Lambin, and L. Dobrzynski Transmittivity through straight and stublike waveguides in a two-dimensional phononic crystal *Phys. Rev. B* **65**, 174308 (2002)
15. C. Goffaux, J. Sánchez-Dehesa, A. Levy Yeyati, Ph. Lambin, A. Khelif, J. O. Vasseur, and B. Djafari-Rouhani Evidence of Fano-Like Interference Phenomena in Locally Resonant Materials *Phys. Rev. Lett.* **88**, 225502 (2002)
16. M. Wilm, A. Khelif, S. Ballandras, V. Laude, and B. Djafari-Rouhani Out-of-plane propagation of elastic waves in two-dimensional phononic band-gap materials *Phys. Rev. E* **67**, 065602 (2003)
17. A. Khelif, B. Djafari-Rouhani, J. O. Vasseur, and P. A. Deymier Transmission and dispersion relations of perfect and defect-containing waveguide structures in phononic band gap materials *Phys. Rev. B* **68**, 024302 (2003)
18. A. Khelif, P. A. Deymier, B. Djafari-Rouhani, J. O. Vasseur, and L. Dobrzynski Two-dimensional phononic crystal with tunable narrow pass band: Application to a waveguide with selective frequency *J. Appl. Phys.* **94**, 1308 (2003)
19. A. Khelif, A. Choujaa, B. Djafari-Rouhani, M. Wilm, S. Ballandras, and V. Laude Trapping and guiding of acoustic waves by defect modes in a full-band-gap ultrasonic crystal *Phys. Rev. B* **68**, 214301 (2003)
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