

Année	Auteurs	Titre	Revue	Référence
2009	I. Ionica, I. Savin, W. Van Den Daele, T. Nguyen, X. Mescot, S. Cristoloveanu	Characterization of Silicon-On-Insulator films with pseudo metal-oxide-semiconductor field-effect transistor: correlation between contact pressure, crater morphology and series resistance	Applied Physics Letters	Vol. 94, no.1, 012111:1-3 (Jan 2009)
2009	S. Feruglio, F. Andrieu, O. Faynot, and G. Ghibaudo	Low-Temperature Electrical Characterization of Fully Depleted eXtra-strained SOI n-MOSFETs with TiN/HfO ₂ gate stack for the 32-nm Technology Node	Cryogenics	In Press, Corrected Proof, Available on line 1 January 2009
2009	P. Martin, M. Cavelier, R. Fascio, G. Ghibaudo, M. Bucher	EKV3 compact modeling of MOS transistors from a 0.18 μm CMOS technology for mixed analog-digital circuit design at low temperature	Cryogenics	In Press, Corrected Proof, Available online 1 January 2009
2009	K. Bennamane, G. Ghibaudo and A. Benfdila	Method for extraction of h parameter characterizing μ_{eff} vs E_{eff} curves in FD-SOI Si MOS devices	Electronics Letters	Vol. 45, no.12, pp. 655-657 (Jun. 2009)
2009	S. Poli, M.G. Pala	Channel-Length Dependence of Low-Field Mobility in Silicon-Nanowire FETs	IEEE Electron Device Letters	Vol. 30, no. 11, pp. 1212-1214 (2009)
2009	L. Pham-Nguyen, C. Fenouillet-Beranger, A. Vandooren, T. Skotnicki, G. Ghibaudo, S. Cristoloveanu	In-situ comparison of Si/High-k and Si/SiO ₂ channels properties in SOI MOSFETs	IEEE Electron Device Letters	Vol. 30, pp. 1075-1077 (2009)
2009	D Fleury, A. Cros, G. Bidal, J. Rosa and G. Ghibaudo	A New Technique to Extract the Source/Drain Series Resistance of MOSFETs	IEEE Electron Device Letters	Vol. 30, pp. 975-977 (2009)
2009	Olaf Mielke, Thomas Ortlepp, Pascal Febvre and F.Hermann Uhlmann	Reduced probability of noise introduced malfunction in RSFQ circuits by implementing intrinsic pi-phaseshifter	IEEE Trans. Appl. Supercond.	to be published, 2009
2009	Th. Ortlepp, S. Wuensch, M. Schubert, P. Febvre, B. Ebert, J. Kunert, H.G. Meyer, M. Siegel and F.H. Uhlmann	Superconductor-to-semiconductor interface circuit for high data rates	IEEE Trans. Appl. Supercond.	Vol. 19, n°1, pp. 28-34, February 2009
2009	C. Buran, M.G. Pala, M. Bescond, M. Dubois, and M. Mouis	Three-Dimensional Real-Space Simulation of Surface Roughness in Silicon Nanowire FETs	IEEE Trans. Electron Devices	Vol. 56, no. 10, pp. 2186-2192 (Oct. 2009)
2009	S. Cristoloveanu, T.V. Chandrasekhar Rao, Q.T. Nguyen, J. Antoszewski, H. Hovel, P. Gentil, L. Faraone	The Corbino Pseudo-MOSFET on SOI : measurements, model, and applications.	IEEE Trans. Electron Devices	Vol. 56, no. 3, pp. 474-482 (March 2009)
2009	N. Rodriguez, S. Cristoloveanu, F. Gamiz	Revisited Pseudo-MOSFET models for characterization of ultrathin SOI wafers.	IEEE Trans. Electron Devices	Vol. 56, no. 7, pp. 1507-1515 (July 2009)
2009	D. Bauza	A General and Reliable Model for Charge Pumping — Part I: Model and Basic Charge-Pumping Mechanisms	IEEE Trans. Electron Devices	Vol. 56, no.1, pp. 70-77 (2009)
2009	D. Bauza	A General and Reliable Model for Charge Pumping — Part II: Application to the Study of Traps in SiO ₂ or in High-k Gate Stacks	IEEE Trans. Electron Devices	Vol. 56, no.1, pp. 78-84 (2009)
2009	P. Kihoon, P. Nayak, S. Cristoloveanu, D.K. Schroder	Pseudo-MOSFET substrate effects of drain current hysteresis and transient behavior	IEEE Trans. Electron Devices	Vol. 56, no.6, pp. 1269-1276 (Jun. 2009)

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2009	S. Poli, M.G. Pala, T. Poiroux	Full Quantum Treatment of Remote Coulomb Scattering in Silicon Nanowire FETs	IEEE Trans. Electron Devices	Vol. 56, no. 6, pp. 1191-1198 (Jun. 2009)
2009	T. Pro, J. Buckley, K. Huang, A. Calborean, M. Gely, G. Delapierre, G. Ghibaudo, F. Duclairoir, J.C. Marchon, E. Jalaguier, P. Maldivi, B. Salvo, S. Deleonibus	Investigation of Hybrid Molecular/Silicon Memories With Redox-Active Molecules Acting as Storage Media	IEEE Trans. Nanotechnology	Vol. 8, pp. 204-213 (2009)
2009	F. El Mamouni, E.X. Zhang, R.D. Schrimpf, D.M. Fleetwood, R.A. Reed, S. Cristoloveanu, W. Xiong	Fin-width dependence of ionizing radiation-induced subthreshold-swing degradation in 100-nm-gate-length FinFETs	IEEE Trans. Nuclear Science	Vol. 56, no.6, pp. 3250-3255 (2009)
2009	M. G. Pala, C. Buran, S. Poli, M. Mouis	Full quantum treatment of surface roughness effects in Silicon nanowires and double gate FETs	J. Computational Electronics	DOI 10.1007/s.10825-009-0289-8, published online: 15 September 2009
2009	C. Dubourdieu, E. Rauwel, H.Roussel, F. Ducroquet, B. Höllander, M. Rossell, G. Van Tendeloo, S. Lhostis, S. Rushworth	Addition of yttrium into HfO ₂ : Microstructure and electrical properties	J. Vac. Sci. Technol. A	Vol. 27, no.3, p. 503-514 (2009)
2009	J. Coignus, R. Clerc, C. Leroux, G. Reibold and G. Ghibaudo	Analytical Modeling of Tunneling Current through SiO ₂ -HfO ₂ Stacks in MOS Structures	J. Vac. Sci. Technol. B	Vol. 27, no. 1, pp. 338-345 (Jan/Feb 2009)
2009	E. Rauwel, F. Ducroquet, P. Rauwel, M.-G. Willinger, I. Matko, N. Pinna	Annealing behavior and electric properties of high-k thin films grown by ALD using carboxylic acids as oxygen sources	J. Vac. Sci. Technol. B	Vol. 27, no.1, pp. 230-235 (Jan/Feb 2009)
2009	M. Rafik, G. Ribes, D. Roy, G. Ghibaudo	SiO ₂ interfacial layer as the origin of the breakdown of high-k dielectrics stacks	J. Vac. Sci. Technol. B	Vol. 27, no.1, pp. 395-399 (Jan/Feb 2009)
2009	L. Zafari, J. Jomaah, G. Ghibaudo, O. Faynot	Low frequency noise analysis in HfO ₂ /SiO ₂ gate oxide fully depleted silicon on insulator transistors	J. Vac. Sci. Technol. B	Vol. 27, no.1, pp. 402-405 (Jan/Feb 2009)
2009	L. Gerrer, G. Ribes, G. Ghibaudo, J. Jomaah	Impact of Progressive Oxide Soft Breakdown on MOS Parameters: Experiment and Modeling.	J. Vac. Sci. Technol. B	Vol. 27, no.1, pp. 448-452 (Jan/Feb 2009)
2009	G. Beylier, D. Benoit, P. Mora, S. Bruyère, and G. Ghibaudo	Contact etch stop a-Si ₃ N ₄ :H layer: A key factor for single polysilicon flash memory data retention	J. Vac. Sci. Technol. B	Vol. 27, no.1, pp. 486-489 (Jan/Feb 2009)
2009	M. A. Negara, K. Cherkaoui, P.K. Hurley, C.D. Young, P. Majhi, W. Tsai, D. Bauza, and G. Ghibaudo	Analysis of electron mobility in HfO ₂ /TiN gate metal-oxide-semiconductor field effect transistors: The influence of HfO ₂ thickness, temperature and oxide charge	Journ. Appl. Phys.	Vol. 105, no.2, pp. 024510:1-8 (Jan. 2009)
2009	M. Cassé, F. Rochette, L. Thevenod, N. Bhourri, F. Andrieu, G. Reibold, F. Boulanger, M. Mouis, G. Ghibaudo, and D.K. Maude	A comprehensive study of magnetoresistance mobility in short channel transistors: Application to strained and unstrained silicon-on-insulator field-effect transistors	Journ. Appl. Phys.	Vol. 105, no.8, pp. 084503:1-9 (April 2009)
2009	L. Souriau, T. Nguyen, E. Augendre, R. Loo, V. Terzieva, M. Caymax, S. Cristoloveanu, M. Meuris, W. Vandervorst	High-hole-mobility silicon germanium on insulator substrates with high crystalline quality obtained by the germanium condensation technique	Journal of The Electrochemical Society	Vol. 156, no. 3, H208-H213 (2009)
2009	K. Zekentes, V. Basanets, M. Boltovets, V. Kryvutsa, V. Orechovskij, V. Simonchuk, A. Zorenko, L. Romanov, A. Kirillov, E. Bano, N. Camara	Microwave switches and modulators based on 4H-SiC PIN diodes	Mat. Sci. Forum	Vols. 600-603, pp. 1019-1022 (2009)

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2009	K. Rogdakis, M. Bescond, E. Bano, K. Zekentes	Theoretical comparison of 3C-SiC and Si nanowire FETs in ballistic regime	Mat. Sci. Forum	Vols. 600-603, pp. 579-582 (2009)
2009	P. Brosselard, N. Camara, X. Jordà, M. Vellvehi, E. Bano, J. Millán, P. Godignon	Reliability Aspects of High-Voltage 4H-SiC JBS Diodes	Mat. Sci. Forum	Vols. 600-603, pp. 935-938 (2009)
2009	K. Rogdakis, S.Y. Lee, D.J. Ki, S.K. Lee, E. Bano, K. Zekentes	Effect of Source and Drain contacts Schottky Barrier on 3C- SiC nanowire FETs I-V characteristics	Mat. Sci. Forum	Vols. 615-617, pp. 235-238 (2009)
2009	F. Rochette, X. Garros, G. Reibold, F. Andrieu, M. Cassé, M. Mouis, G. Ghibaudo, F. Boulanger	Strain sensitivity of gate leakage in strained-SOI nMOSFETs: a benefit for the performance trade-off and a novel way to extract the strain-induced band offset	Microelectronic Engineering	Vol. 86, no.4, online on http://dx.doi.org/10.1016/j.mee.2009.03.043 since march 2009.
2009	K. Romanjek, E. Augendre, W. Van den Daele, B. Grandchamp, L. Sanchez, C. Le Royer, J.-M. Hertmann, B. Ghyselen, E. Guiot, K. Bourdelle, S. Cristoloveanu, F. Boulanger, L. Clavelier	Improved GeOI substrates for pMOSFET off-state leakage control	Microelectronic Engineering	Vol. 86, no.7-9, pp. 1585-1588 (2009)
2009	B. Bercu, X. Xu, L. Montès, P. Morfouli	Characterization of mechanical stress on nanostructures for NEMS applications by ultra-thin membrane and self-suspension techniques	Microelectronic Engineering	Vol. 86, pp. 1303-1306 (2009)
2009	M. Charbonnier, C. Leroux, V. Cosnier, P. Besson, F. Martin, G. Ghibaudo, G. Reibold	Tuning the dipole at the High-k/SiO ₂ interface in advanced metal gate stacks.	Microelectronic Engineering	Vol. 86, pp. 1740-1742 (2009)
2009	G. Molas, M. Bocquet, E. Vianello, L. Perniola, H. Grampeix, J.P. Colonna, L. Masarotto, F. Martin, P. Brianceau, M. Gély, C. Bongiorno, S. Lombardo, G. Pananakakis, G. Ghibaudo, B. De Salvo	Reliability of charge trapping memories with high-k control dielectrics	Microelectronic Engineering	Vol. 86, pp. 1796-1803 (2009)
2009	M. Bescond, M. Lannoo, F. Michelini, L. Raymond, M.G. Pala	3D real-space quantum transport simulation of nanowire MOS transistors: Influence of the ionized doping impurity	Microelectronics Journal	Vol. 40, pp. 756-758 (2009)
2009	M. A. Exarchos, G.J. Papaioannou, J. Jomaah, F. Balestra	Investigation of defects introduced by static and dynamic hot carrier stress on SOI partially depleted body-contact MOSFETs	Microelectronics Reliability	Vol. 40, pp. 1018-1023 (2009)
2009	K. Rogdakis, S. Poli, E. Bano, K. Zekentes, M.G. Pala	Phonon- and surface-roughness-limited mobility of gate-all-around 3C-SiC and Si nanowire FETs	Nanotechnology	Vol. 20 no. 29, p. 295202 (2009)
2009	M. G. Pala, S. Baltazar, F. Martins, B. Hackens, H. Sellier, T. Ouisse, V. Bayot, and S. Huant,	Scanning gate microscopy of quantum rings: effects of an external magnetic field and of charged defects	Nanotechnology	Vol. 20, no. 26, p. 264021 (2009)
2009	E. Buccafurri, R. Clerc, F. Calmon, M. Pala, A. Poncet, G. Ghibaudo	Performances Comparison of Si and GaAs Based Resonant Tunneling Diodes	Physica Stat. Sol. (c)	Vol. 6, no. 6, pp. 1408-1411 (2009)
2009	D. Futterer, M. Governale, M. G. Pala, and J. König	Nonlocal Andreev transport through an interacting quantum dot	Physical Review B	Vol. 79, no.5, 054505 (Feb. 2009)
2009	A. Tsormpatzoglou, D.H. Tassis, C.A. Dimitriadis, M. Mouis, G. Ghibaudo, N. Collaert	Electrical characterization and design optimization of FinFETs with a TiN/HfO ₂ gate stack	Semiconductor science and technology	Vol. 24, no. 12, pp.125001:6 (2009)
2009	A. Tsormpatzoglou, C. A. Dimitriadis, G. Ghibaudo, G. Pananakakis	Compact drain current model of short-channel cylindrical gate-all-around MOSFETs	Semiconductor science and technology	Vol. 24, pp. 075017 (2009)
2009	L. Sang-Kwon, L. Seung-Yong, K. Rogdakis, J. Chan-Oh, K. Dong-Joo, E. Bano, K. Zekentes	Si nanowire p-FET with asymmetric source-drain I-V characteristics	Solid State Communications	Vol. 149, no. 11-12, pp. 461-463 (2009)

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2009	N. Rodriguez, F. Gamiz, R. Clerc, C. Sampedro, A. Godoy, G. Ghibaudo	Non-metallic effects in silicided gate MOSFETs	Solid State Electronics	Vol. 53, n°12, pp. 1313-1317 (Dec. 2010)
2009	A. Tsormpatzoglou, C.A. Dimitriadis, M. Mouis, G. Ghibaudo, N. Collaert	Experimental characterization of the subthreshold leakage current in triple-gate FinFETs	Solid State Electronics	Vol. 53, No. 3, pp. 359-363 (March 2009)
2009	I. Pappas, G. Ghibaudo, C.A. Dimitriadis, C. Fenouillet-Beranger	Backscattering coefficient and drift-diffusion mobility extraction in short channel MOS devices	Solid State Electronics	Vol. 53, no.1, pp. 54-56 (Jan. 2009)
2009	K.I. Na, S. Cristoloveanu, Y.H. Bae, P. Patruno, W. Xiong, J.H. Lee	Gate-induced floating-body effect (GIFBE) in fully depleted triple-gate n-MOSFETs	Solid State Electronics	Vol. 53, no.2, pp. 150-153 (Feb. 2009)
2009	A.Cathignol, S. Bordez, A. Cros, K. Rochereau, G. Ghibaudo	Abnormally high local electrical fluctuations in heavily pocket-implanted bulk long MOSFET	Solid State Electronics	Vol. 53, no.2, pp.127-133 (Feb. 2009)
2009	C. Dupré, T. Ernst, E. Bernard, B. Guillaumot, N. Vulliet, P. Coronel, T. Skotnicki, S. Cristoloveanu, G. Ghibaudo, O. Faynot, S. Deleonibus	Method for 3D electrical parameters dissociation and extraction in multichannel MOSFET (MCFET)	Solid State Electronics	Vol. 53, pp. 746–752 (2009)
2009	F. Rochette, M. Cassé, M. Mouis, A. Haziot, T. Pioger, G. Ghibaudo, F. Boulanger	Piezoresistance Effect of Strained and Unstrained Fully-Depleted Silicon-On-Insulator MOSFETs Integrating an HfO ₂ /TiN Gate Stack	Solid State Electronics	Vol. 53, no. 3, pp. 392-396 (March 2009)
2009	K. Bennamane, T. Boutchacha, G. Ghibaudo, M. Mouis, N. Collaert	DC and Low Frequency Noise Characterization of FinFET Devices	Solid State Electronics	Vol. 53, pp. 1263-1267 (2009)
2009	G. Bidal, N. Loubet, C. Fenouillet-Beranger, S. Denorme, P. Perreau, D. Fleury, L. Clement, C. Laviron, F. Leverd, P. Gouraud, S. Barnola, R. Beneyton, A. Torres, C. Duluard, J.D. Chapon, B. Orlando, T. Salvetat, M. Grosjean, E. Deloffre, R. Pantel, D. Dutartre, S. Monfray, G. Ghibaudo, F. Boeuf, T. Skotnicki	Folded fully depleted FET using Silicon-On-Nothing technology as a highly W-scaled planar solution	Solid State Electronics	Vol. 53, pp. 735-740 (2009)
2009	Y. Rozier, B. Gautier, G. Hyvert, A. Descamps, C. Plossu, C. Dubourdieu, F. Ducroquet	Nanoscale leakage current measurements in metal organic chemical vapour deposition crystalline SrTiO ₃ films	Thin Solid Films	Vol. 517, no.6, p.1868-1873 (Jan. 2009)