

LIS

Laboratoire d'ingénierie des systèmes de Vers

REVUES INTERNATIONALES 2005 - 2009 DE L'ÉQUIPE INSTRUMENTATION ET MODÉLISATION DES SYSTÈMES ET NANOSYSTÈMES AVANCÉS

[Revue Internationale 2005 - 2009](#)

2009

J-B Millet, F. Aubertin, C. Saad, M. Lehr, F. Maroteaux, Air system and diesel combustion model of a 4 cylinder engine in real time computing conditions: application on a EU5 personal car with diesel particulate filter, SAE technical Paper, SAE 2009-24-0136, DOI 10.4271/2009-24-0136 (2009).

S. Xu, L. Chassagne, S. Topcu, Y. Alayli, D-S. Li, Nanopositioning system based on

polarimetric interferometer, Journal of China Institute of Metrology n°20 tome 2, 118-121 (2009).

A. Rotaru, J. Linares, S. Mordelet, A. Stancu, J. Nasser, Re-entrance Phase and Excited Metastable Electronic Spin States in Spin Crossover compounds Explained by Atom-Phonon Coupling Model, Journal of Applied Physics, 106 043507 (2009).

A. Rotaru, A. Carmona, F. Combaud, J. Linares, A. Stancu, J. Nasser, Monte Carlo simulations for 1- and 2D spin crossover compounds using the atomphonon coupling model, Polyhedron, 28 pp 1684-687 (2009).

G. Léron del, A. Sinno, L. Chassagne, S. Blaize, P. Ruaux, A. Bruyant, S. Topçu, P. Royer, Y. Alayli, Enlarged near field optical imaging, Journal of Applied Physics, 106, 044913 (2009). [PDF - 314 Ko]

2008

J.B. Millet, F. Maroteaux, F. Ravet, Modeling of HCCI combustion by one step reaction function: in a view of application to engine management system, SAE Transactions, section 3, Vol 116, pp 1508-1520(2008).

A. Rotaru, E. Codjovi, J. Linares, J. Nasser, A. Stancu, Size and pressure effect in the atom-phonon coupling model for spin crossover compounds, Journal of Applied Physics 103 07B908 (2008).

S. Xu, K. Ouedraogo, L. Chassagne, S. Topçu, P. Juncar, Y. Alayli Polarimetric interferometer for nanoscale positioning applications, Review of Scientific Instruments, 79, 125104 (2008). [PDF - 582 Ko]

2007

L. Chassagne, M. Wakim, S. Xu, S. Topçu, P. Ruaux, P. Juncar, Y. Alayli, 2D nano-positioning system with a sub-nanometric repeatability over millimetre displacement range, Measurement Science and Technology 18 (2007) 3267-3272. [PDF - 369 Ko]

A. Sinno, P. Ruaux, L. Chassagne, S. Topçu, Y. Alayli, G. Lerondel, S. Blaize, A. Bruyant, P. Royer, 2D Enlarged atomic force microscopy scanning scope: novel sample-holder device with millimetre range, Review of Scientific Instruments, 78, 095107 (2007). [PDF - 470 Ko]

J.A. Nasser, S. Topçu, L. Chassagne, A. Bousseksou, T. Guillon, Y. Alayli, 3d Electrons-molecular vibrations coupling in spin conversion compounds molecules: A quantitative

study for the $[\text{Fe}(\text{phen})_2(\text{NCS})_2]$ molecules, *Chemical Physics Letters*, 446 (2007) 385-390.

G. Genevès et al., The watt balance: toward a new definition of the mass unit ? *Revue française de Métrologie* n°96, 2007-1.

F. Maroteaux, L. Noel, A. Ahmed, Numerical investigations on methods to control the rate of heat release of HCCI combustion using reduced mechanism of n-heptane with multidimensional CFD code. *Combustion Theory and Modelling*, Volume 11, Number 4 2007, pp 501-525 ((2007).

J-B Millet, F. Maroteaux, Ravet, Modeling of HCCI combustion by one step reaction function : in a view of application to engine management system. *SAE Technical Paper*, SAE 2007-24-0033, DOI 10-4271/2007-24-0033 (2007).

P-L Pommier, F. Maroteaux, M. Sorine, F. Ravet, Particle Approximation Applied to Diesel Combustion: Effects of Initial Distribution and Particles Number. *SAE Technical Paper*, 2007-09-16, DOI 10.4271/2007-09-16 (2007).

2006

M. Wakim, S. Topçu, L. Chassagne, J. Nasser, Y. Alayli, P. Juncar, Highly accurate laser wavelength meter based on Doppler effect, *Optics Communications*, 262 (2006) 97-102. [PDF - 340 Ko]

S. Topçu, J. Nasser, L. M. Lawson Daku, S. Fritzsche, Ab initio calculations of external field shifts of the 661 nm quadrupolar clock transition in neutral Ag atoms, *Physical Review A*. 73, 042503 (2006).

J.P. Wallerand, M. Himbert, S. Topçu, Y. Alayli, M. Deneva, M. Nenchev, "Development of original techniques for realisation and study of the peculiarities of two-wavelength cw diode pumped Yb-doped crystal and red semiconductor lasers", *Journal of the Technical University at Plovdiv : Fundamental Sciences and Applications*, Bulgaria, pp 5-21, vol. 13 (3), 2006.

D. Haddad, M. Wakim, L. Chassagne, S. Topçu, P. Juncar, Y. Alayli, Position and velocity control at the nanometric scale in the LNE watt balance project, *Revue française de Métrologie* n°6, 2006-2.

F. Maroteaux, L. Noel, Development of a reduced n-heptane oxidation mechanism for HCCI combustion modeling. Combustion and Flame 146 pp 246-267 (2006).

J.B. Millet, F. Maroteaux, M. Sorine, A Reduced Model of HCCI Combustion in View of Application to Model Based Engine Control Systems, SAE Technical Paper, SAE 2006-01-3297 (2006).

2005

S. Topçu, L. Chassagne, Y. Alayli, P. Juncar, Improving the accuracy of homodyne Michelson interferometers using polarisation state measurement techniques, Optics Communications, Vol 247 pp:133-139, March 2005 [PDF - 283 Ko].

Y. Alayli, S. Topçu, L. Chassagne, J. Viennet, Compensation of the thermal influence on a high accuracy optical fibre displacement sensor, Sensors and Actuators A : Physical, Vol 120, Issue 2, pp343-348, May 2005. [PDF - 144 Ko]

L. Chassagne, S. Topçu, Y. Alayli, P. Juncar, Highly accurate positioning control method for piezoelectric actuators based on phase-shifting optoelectronics, Measurement Science and Technology 16 (2005) 1771-1777. [PDF - 406 Ko]

G. Genevès, P. Gournay, A. Gosset, M. Lecollinet, F. Villar, P. Pinot, P. Juncar, A. Clairon, A. Landragin, D. Holleville, F. Pereira Dos Santos, J. David, M. Besbes, F. Alves, L. Chassagne, S. Topçu, The watt balance project, IEEE Transactions on Instrumentation and Measurements, Special Issue on CPEM 2004, Vol 54 N°2, (ISSN0018-9456) pp 850-853, April 2005.

J. Nasser, Diluted spin conversion compounds behaviours in the atom-phonon coupling model: case of not too large dilution. Role of the Lennard-Jones potential? European Physical Journal B, 48, 19-27 (2005).