

RESEAU FRANCAIS DE MECANOSYNTHESE

Lettre N°42

Septembre 1998

125 (+1) Groupes de Recherche
(dont 62 (+1) à l'étranger)

Bureau : E. Gaffet (Président), G. Le Caër (Secrétaire Général), A.R. Yavari (Trésorier)

1 Nouvelle Adhésion

D. Morris - Neuchâtel - Suisse

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ANNONCE DE CONGRES ET / OU ECOLES CONGRESS AND SCHOOL ANNOUNCEMENTS

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All the details may be obtained by E-Mail to E. Gaffet

Fatigue Damage of Structural Materials II

Engineering Foundation Conference
Cape Cod - Massachusetts - USA 31 Août - 4 Septembre 1998
Org. A.K. Vasudevan, J.C. Cammett, T. Nicholas, K. Jata
E-Mail : engfnd@aol.com

ESTAC 7 et EUROSOLID - 5

Baltonfüred - 30 Août - 4 Septembre 1998
Contact : Prof. G. Liptay - Hungarian Chemical Society - Fö u. 68, Budapest - H - 1027 Hongrie

5th International Conference on Nanometer scale Science and Technology (NANO 5)

Birmingham - UK - 31 Aout - 4 Septembre 1998
Site : <http://www.iop.org/IOP/Confs/IVC>

Ninth International Symposium on Small Particles and Inorganic Clusters (ISSPIC 9)

Lausanne - Suisse - 1 - 5 Septembre 1998
Website : <http://ipent.epfl.ch/isspic9>

Magnetism of Nanostructured Phases - MNP Conference

EMMA Satellite Meeting
San Sebastian (Espagne) - 4 / 6 Septembre 1998
E-Mail : wupdocal@sp.ehu.es

9th European Symposium on Comminution and Classification

Albi (France) - 8 - 10 Septembre 1998
sous l'égide de l'European Federation of Chemical Engineering
Contacts : J. Dodds - Chairman of the Organizing Committee
WebSite - <http://www.enstimac.fr/manif/comminution98>

First Joint ESF - NSF Symposium on Aerosols for Nanostructured Materials and Device

Edinburgh - Ecosse - 12 Septembre 1998
Contact : h. Fissan@uni-duisburg.de ou dyhpui@tc.umn.edu

First International Conference on Inorganic Materials

Synthesis, Characterisation, Properties and Applications of Inorganic Materials
Versailles - 16 / 19 Septembre 1998 - France
Website : <http://www.elsevier.nl/locate/materials98>

ISAPM98

3rd International Symposium on Advanced Powder Materials (ISAPM98)

23 - 26 September 1998 - KAIST - Tazejong - Corée du Sud

Correspondence : Prof. Suk-Joong L. Kang or Ms. Sung Sook Park - Center for Interface Science and Engineering of Materials (CISEM) - Korea Advanced Institute of Science and Technology (KAIST) - Yusong-gu, Kusong-dong, Taejon, 305-701 Korea - Tel:82-(0)42-869-4113, 8919 / Fax: 82-(0)42-869-8920
E-mail : sjkang@sorak.kaist.ac.kr / e_cisem@cais.kaist.ac.kr

Solid State Chemistry : Novel Syntheses and New Materials

Bordeaux - France - 24/26 Septembre 1998

Website : <http://chemistry.rsc.org/rsc/confs.htm>

Workshop on

Nanoscale Structure and Kinetics at Solid Interface

Halle - Allemagne - 28 - 30 Septembre 1998

Website : <http://www.ep3.uni-halle.de/workshop/nanosk.html>

**The Reh binder Memorial International Conference
on Colloid Chemistry and Physical Chemical Mechanics**

Moscou (Russie) - 4 - 8 Octobre 1998

Contact : Prof. N.B. Uriev - Institute of Physical Chemistry - Leninsky Prospect 31 - 11795 Moscow - Russie

E-Mail : Reh binder98rehb.chem.msu.su ou <http://www.chem.msu.su>

Powder Metallurgy 98

Granada - Espagne - 18 - 22 Octobre 1998

Site Web : <http://www.epma.com/congress/>

**Gorham / Intertech Conference on "Commercializing Nanotechnology 98 : Bridging New
Materials to Market"**

19 - 21 Octobre 1998 Nashville - TN USA

Contact : C.E. Spear - Intertech Corporation : Fax 207 - 781 - 2150

JA 98

Paris - 27 - 29 Octobre 1998

Symposium 1 : Phénomènes déterministes et aléatoires en science des matériaux

Symposium 2 : Matériaux poreux et mousses : élaboration, structures et propriétés

Symposium 3 : Les hydrures métalliques

Symposium 4 : Propriétés Thermophysiques et thermomécaniques des matériaux de la mesure à la simulation de procédés industriels

Symposium 5 : Analyse d'images et reconnaissance de formes en matériaux

Symposium 6 : Lois de comportement et calcul de structures

Org. SF2M - Contact : SFMM@wanadoo.fr

Fifth International Symposium on Quantum Confinement : Nanostructures

194th Meeting of the Electrochemical Society

1 - 6 Novembre 1998 - Boston - MA - USA

<http://www.electrochem.org>

Fine, Ultrafine and Nano Powders '98

Crowne Plaza Hotel - LaGuardia Airport - 8 - 10 Novembre 1998

Contact : E-Mail : Tombcc@aol.com

**Sixth Foresight Conference
on Molecular Nanotechnology**

Westin Hotel - Santa Clara - 12 15 Novembre 1998

California Satellite Conference to Nano'98

Contact : E-Mail : globus@nas.nasa.gov

Symposium on Advanced Technologies for Particle Production

AICHE Annual Meeting

15 - 20 November - Miami Beach - FL - USA

Technical Sessions and ChairPersons

1/ Particle Synthesis in Dispersions and Supercritical Fluids - R. Davis/MT Harris/D. Tomasko

2/ Sol - Gel Synthesis of Particles - A McCormick/PN Kumta/T. Okubo

3/ Chemical Kinetics during Particle Formation - J. Floess, K. Higashitani, S. E. Pratsinis

4/ In-Situ Diagnostics during Particle Formation - Ph. W. Morrison, R.M. Carangelo, D.T. Spicer

5/ Agglomerate Particle Dynamics - G. Fotou, SK Friedlander, Takahashi

6/ Computational Fluid Dynamics during Particle Formation and Growth - L. Collins, K. Kontomaris

7/ Aerosol Reactors - A.W. Weimer, M. Kamal Akhtar

- 8/ Particle Charging - T. Matsoukas
9/ Film synthesis by Particle Technologies - G. Grader, S. Bhandarkar
10/ Nanoparticles - M. Senna, T.J. Mountziaris, H. Glicksmn
11/ Particulate deposits : Transport mechanisms, microstructure and properties : D. Rosner
12/ Posters on Advanced Technologies for Particles Production : G. Beaucage, H. Riemenschneider
Web Site : www.aiche.org

ISMANAM98

International Symposium on Metastable, Mechanically Alloyed and Nanocrystalline Materials
Wollongong (Sydney) - Australie - 7 - 12 Décembre 1998

International Advisory Committee :

V.V. Boldyrev, R.W. Cahn, S. Enzo, H. Fecht, E. Gaffet, A. Garcia - Escorial, A.L. Greer, E.Y. Gutmanas,
K. Lu, M. Mammoun, M.T. Mora, H. Mori, M.A. Morris, L. Schultz, M. Senna, A. Slawska - Waniewska,
R. Schwarz, R.W. Siegel, M. Umemoto

ISMANAM Steering Committee:

J.H. Ahn, M.D. Baro, A. Calka, S. Gialanella, A. Inoue, G. Le Caer, D.G. Morris, P.H. Shingu, H. Bakker,
R. Bormann, G. Cocco, A. Hernando, C.C. Koch, M. Magini, R. Schulz, A.R. Yavari

Contact : A. Calka E-Mail : Andrzej_Calka@uow.edu.au et

WebSite : <http://www.uow.edu.au/conferences/ismanam98>

Satellite Symposium on Mechanochemistry / ISMANAM98
(Mechanochemical Synthesis and Mechanochemistry)

Wollongong - Australie 7 / 12 Decembre 1998

International Advisory Committee :

E. Ivanov (Chairman), A. Calka, V. Bodyrev, P. Butyagin,
E. Gaffet, E. Gutman, M. Senna, C. Suryanaryana, R. Schwarz

WebSite : <http://www.uow.edu.au/conferences/ismanam98>

Nanostructured Hybrid Materials

Symposium TMS Annual Meeting - San Diego CA - USA - 28 Février 4 Mars 1999

Contact : gmchow@anvil.nrl.navy.mil

4th International Workshop on Metastable Phases (IV IWOMP)

7 - 9 Avril 1999 - Bologne - Italie

Contact : Bonetti@df.unibo.it

12th International Conference on Wear of Materials

Atlanta - Georgie / USA - 25 - 29 Avril 1999

contact : Amy Richardson E-Mail A.Richardson@elsevier.co.uk

or web site : <http://www.elsevier.nl/locate/wom99>

**Nanostructured Materials Symposium at the 5th IUMRS International Conference
on Advanced Materials**

(IUMRS - ICAM'99)

Beijing - Chine - 13 - 18 Juin 1999

Contact : Kelu@imr.ac.cn

WebSite - <http://www.chimeb.edu.cn>

PM2 Tec 98

1999 International Conference

on Powder Metallurgy and Particulate Materials

Vancouver - 20 / 24 Juin 1999

E-Mail : Info@mpif.org - Website: www.mpif.org

Nouveau

10th International Conference on Rapidly Quenched and Metastable Materials (RQ10)

Bangalore - Inde - 23 - 27 Août 1999

Website : <http://www.metalrg.iisc.ernet.in/rqten/>

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Annonces de Soutenance de Thèses
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**Transformations antiferromag - ferromag - paramagnétiques - verre de spin dans les alliages de Fe Rh
nanocristallisés par Broyage**

E. Navarro - Université de Complutense - Madrid - Espagne - 18 Mai 1998

Co directeurs : A. Hernando - A.R. Yavari

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**Modifications morphologiques et microstructurales du matériau actif des cathodes de batteries à l'ion lithium
induites par broyage et traitement thermique**

Ph. Perrot - Université de Poitiers - 6 Mai 1998

Co - Directeurs : E.L. Mathe, M. Grosbras

Jury : J. Mimault, H. Van Damme, A. Dager, M. Broussely, P. Goudeau, E.L. Mathe, M. Grosbras
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Effects of the mechanical milling on carbons : negative electrode materials of Li - ion batteries"

F. Salver Disma - Université de Picardie Jules Verne **4 Février 98**

Jury : Aymard L., Beguin F., Coulon M., Furdin G, Lassegues JC, Percheron Guegan A., Rouzaud JN, Tarascon JM.
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"Elaboration et Caractérisations de Cermets Alumine - Métal à partir de poudres obtenues par Mécanosynthèse"

J.-L. Guichard - INPL - Nancy - **23 Janvier 1998**

Jury : A. Simon, C. Carry, F. Thévenot, G. Le Caër, A. Mocellin
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"Spinelles nanométriques à valence mixte et à fort taux de lacunes cationiques : Transfert électroniques dans un ferrite de molybdène Fe_{2.47}Mo_{0.53}O₄, de la synthèse aux propriétés magnétiques dans le système fer - vanadium Fe_{3-x}V_xO₄ (0=x<2).

V. Nivoix - Université de Bourgogne - **17 Décembre 1997**

Jury : M. Lenglet, H. Pascard, G. Bertrand, E. Gaffet, M. Guyot, M. Lallemand, A. Rousset, B. Gillot
=====

"The Preparation of Nitrides and Carbides by Mechanical Treatment - Phases and Structures"

G.M. Wang - School of Physics, University College, The University of New South Wales - Australian Defence Force Academy - Canberra, ACT 2600 - Australia **10/12/97**

Supervisor - S.J. Campbell - **Co - Supervisors:** W.A. Kaczmarek and A. Calka
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"Suivi par Diffraction X en Temps Réel de la Formation par Combustion des intermétalliques des systèmes Al - Ni, Al - Ti, Al - Ni - Ti"

J. F. Javel - Université de Nancy I - **3 Octobre 1997**

Jury : J.F. Berar, F. Bernard, M. Bessiere, M. Dirand, J.C. Gachon, P. Galez, J.C. Jorda
=====

"Contribution à l'Etude de la Transformation - Tribologique Superficielle en Fretting"

E. Sauger - Ecole Centrale de Lyon - Génie des Matériaux **26 Septembre 1997**

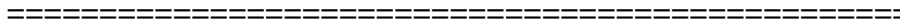
Jury : L. Mora - Ponsonnet, P. Blanchard, K. Dang Van, C. Esnouf, E. Gaffet, E. Rosset, A.B. Vannes, L. Vincent

Sites internet à découvrir

Site sur la cristallographie / Soft + Littérature

<http://www.lmcp.jussieu/sincris-top/logiciel>

N.B. : si vous connaissez d'autres sites en relation avec les thèmes développés par le RFM, faites nous les connaître



Post Doc Position Proposals

Belgique

The Department Metallurgy and Materials Engineering (MTM) of the K.U.Leuven (Belgium) has a research position available. Candidates are asked to contact the responsible staff member.

Area of research :

Metals and Alloys, Polymer Matrix Composites, Intelligent Processing of Materials, Surface Engineering and Tribology, Metal Forming and Mechanical Behaviour of Materials, Quality Control and Non-Destructive Testing of Materials, Ceramics, Thermodynamics, Corrosion, Nuclear Engineering

Description of research task

Tailor made powders by mechanical alloying of Fe and Cu based materials. Application field: specific composite materials, to be prepared by conventional PM consolidation techniques. Research activities: parametric study of MA, alloy design, microscopic

Staff member to be contacted

Prof. Dr. Ir. L. Froyen

Katholieke Universiteit Leuven - Dept. MTM

de Croylaan 2 - B-3001 Leuven (Belgium)

Tel. +32/16/22.09.31

Japon

Our group: Nanocomposite Group, Department of Composite Materials, National Institute of Materials and Chemical Research, Tsukuba, Ibaraki, Japan is now looking for post-doc researchers

The candidates would be integrated in the Nanocomposite Group of the Department of Composite Materials. The research interests of the group are mainly focused on nanocomposite preparation and its optical/chemical functionalities. Research projects currently under way aim to develop nanostructured and optically/chemically active thin films by sputtering, laser ablation and so on. For additional information about the Institute and group :

<http://www.nimc.go.jp/>

<http://www.aist.go.jp/NIMC/fcg/index.html>

Experience in the fields of materials science (ceramic or metal) is required.

There are two types of post-doc positions.

1. Long-term: from 6 months to 2 years

2. Short-term: from 1 to 3 months

If you or someone in your laboratory is interested in this fellowship, please contact as soon as possible to:

Dr. Naoto Koshizaki

Department of Composite Materials

National Institute of Materials and Chemical Research(NIMC) 1-1 Higashi, Tsukuba, Ibaraki 305-8565 JAPAN

Tel: +81-298-54-6335

Fax: +81-298-54-6252

E-mail: koshizaki@nimc.go.jp

<http://www.aist.go.jp/NIMC/fcg/index.html>

Bibliographie Récente

**N.B. : En cas de difficultés à vous procurer une copie des articles suivants,
n'hésitez pas à contacter E. Gaffet (CNRS / IPSé - Belfort)**

Livres ou "Special Issues"

Proceeding du Congrès "Mechanically Alloyed, Metastable and Nanocrystalline Materials" - Barcelone (1997)
Editor : M.D. Baro, S. Surinach - Materials Science Forum 269 - 272 (1998)

PERIODIQUES

(Rubrique assurée grâce au concours de M^{me} TAUZIN - FIN BiPSé)

[30] STRUCTURAL AND THERMAL STUDY OF FE-NI-SI-B POWDERS PREPARED BY MECHANICAL ALLOYING

JJ Sunol - MECHANICALLY ALLOYED, METASTABLE AND NANOCRYSTALLINE MATERIALS, PART 1 (Series: MATERIALS SCIENCE FORUM), 1998, Vol 269-2, 1, pp 503-508

[29] COMBUSTION PHENOMENA INDUCED BY BALL MILLING

L Takacs - MECHANICALLY ALLOYED, METASTABLE AND NANOCRYSTALLINE MATERIALS, PART 2 (Series: MATERIALS SCIENCE FORUM), 1998, Vol 269-2, 2, pp 513-522

[28] EFFECT OF GRADIENT OF THE ORDER PARAMETER ON SOME PHASE TRANSFORMATIONS AT THE NANOMETER SCALE

PJ Desre, F Hodaj - MECHANICALLY ALLOYED, METASTABLE AND NANOCRYSTALLINE MATERIALS, PART 2 (Series: MATERIALS SCIENCE FORUM), 1998, Vol 269-2, 2, pp 523-532

[27] STRUCTURAL RELAXATION OF ZR55NI25AL20 BALL-MILLED AMORPHISED POWDER

E Illekova, M Jergel, FA Kuhnast, O Held - MECHANICALLY ALLOYED, METASTABLE AND NANOCRYSTALLINE MATERIALS, PART 2 (Series: MATERIALS SCIENCE FORUM), 1998, Vol 269-2, 2, pp 583-588

[26] HIGH ENERGY TREATMENT OF INTERMETALLIC COMPOUNDS IN THE SYSTEM NI-NB-V

YA Skakov, NP Djakonova, TA Sviridova, EV Shelekhov - MECHANICALLY ALLOYED, METASTABLE AND NANOCRYSTALLINE MATERIALS, PART 2 (Series: MATERIALS SCIENCE FORUM), 1998, Vol 269-2, 2, pp 595-600

[25] PREDICTING THE TYPE OF DISORDER, CREATED BY BALL MILLING OF C15 COMPOUNDS, BY ESTIMATING THE FORMATION ENTHALPIES OF VACANCY TYPE AND ANTI-SITE DISORDER

IW Modder, MJ Kuin, H Bakker - MECHANICALLY ALLOYED, METASTABLE AND NANOCRYSTALLINE MATERIALS, PART 2 (Series: MATERIALS SCIENCE FORUM), 1998, Vol 269-2, 2, pp 619-624

[24] MECHANICAL GRINDING OF TFE₂ (T = HF, ZR) COMPOUNDS

LC Damonte, L MendozaZelis, FH Sanchez - MECHANICALLY ALLOYED, METASTABLE AND NANOCRYSTALLINE MATERIALS, PART 2 (Series: MATERIALS SCIENCE FORUM), 1998, Vol 269-2, 2, pp 625-630

[23] DEFECTS, DISLOCATIONS AND DISORDER DURING DEFORMATION, MILLING AND QUENCHING OF AN FEAL ALLOY

MA Morris, S Gunther, DG Morris - MECHANICALLY ALLOYED, METASTABLE AND NANOCRYSTALLINE MATERIALS, PART 2 (Series: MATERIALS SCIENCE FORUM), 1998, Vol 269-2, 2, pp 631-636

[22] MAGNETIC AND X-RAY DIFFRACTION INVESTIGATIONS OF THE REORDERING OF A BALL MILLED FE-40AL AT.% ALLOY

X Amils, J Nagues, S Surinach, MD Baro, L Lutterotti, S Gialanella - MECHANICALLY ALLOYED, METASTABLE AND NANOCRYSTALLINE MATERIALS, PART 2 (Series: MATERIALS SCIENCE FORUM), 1998, Vol 269-2, 2, pp 637-642

[21] STRUCTURE AND MAGNETIC PROPERTIES OF MECHANICALLY ALLOYED FE50AL50

D Oleszak, M Pekala, E Jartych, JK Zurawicz - MECHANICALLY ALLOYED, METASTABLE AND NANOCRYSTALLINE MATERIALS, PART 2 (Series: MATERIALS SCIENCE FORUM), 1998, Vol 269-2, 2, pp 643-648

[20] PHASE TRANSFORMATIONS UNDER BALL MILLING

P Pochet, P Bellon, L Boulanger, L Chaffron, G Martin - MECHANICALLY ALLOYED, METASTABLE AND NANOCRYSTALLINE MATERIALS, PART 2 (Series: MATERIALS SCIENCE FORUM), 1998, Vol 269-2, 2, pp 655-664

[19] MICROSCOPIC MODEL FOR MECHANICAL ALLOYING

RB Schwarz - MECHANICALLY ALLOYED, METASTABLE AND NANOCRYSTALLINE MATERIALS, PART 2 (Series: MATERIALS SCIENCE FORUM), 1998, Vol 269-2, 2, pp 665-674

[18] PROCESS PARAMETERS AND AMORPHIZATION RATE OF CU-TI SYSTEM UNDER MECHANICAL DEFORMATION

G Mulas, F Delogu, M Monagheddu, L Schiffrini, G Cocco - MECHANICALLY ALLOYED, METASTABLE AND NANOCRYSTALLINE MATERIALS, PART 2 (Series: MATERIALS SCIENCE FORUM), 1998, Vol 269-2, 2, pp 693-698

[17] SOFT MAGNETIC NANOCRYSTALLINE POWDERS OBTAINED BY MECHANICAL GRINDING

LK Varga, D Kaptas, T Kemeny - MECHANICALLY ALLOYED, METASTABLE AND NANOCRYSTALLINE MATERIALS, PART 2 (Series: MATERIALS SCIENCE FORUM), 1998, Vol 269-2, 2, pp 731-736

- [16] FORMATION AND STABILITY OF BULK METALLIC GLASS FORMING MG-Y-CU ALLOYS PRODUCED BY MECHANICAL ALLOYING AND RAPID QUENCHING**
N Schlorke, J Eckert, L Schultz - MECHANICALLY ALLOYED, METASTABLE AND NANOCRYSTALLINE MATERIALS, PART 2 (Series: MATERIALS SCIENCE FORUM), 1998, Vol 269-2, 2, pp 761-766
- [15] THERMAL STABILITY AND CONSOLIDATION BEHAVIOR OF MECHANICALLY ALLOYED ZR-AL-CU-NI POWDERS WITH VARYING OXYGEN, IRON AND TUNGSTEN CONTENT**
A Kubler, J Eckert, A Kirchner, L Schultz - MECHANICALLY ALLOYED, METASTABLE AND NANOCRYSTALLINE MATERIALS, PART 2 (Series: MATERIALS SCIENCE FORUM), 1998, Vol 269-2, 2, pp 767-772
- [14] ELECTROCATALYTIC PERFORMANCE OF NANOCRYSTALLINE TI-RU-(FE)-O ALLOY CATHODES FOR HYDROGEN EVOLUTION IN AQUEOUS 30 WT% KOH AND 32 WT% NaOH SOLUTIONS AT 70 DEGREES C**
S Jin, A VanNeste, E Ghali, R Schulz - MECHANICALLY ALLOYED, METASTABLE AND NANOCRYSTALLINE MATERIALS, PART 2 (Series: MATERIALS SCIENCE FORUM), 1998, Vol 269-2, 2, pp 807-812
- [13] PREPARATION OF NANOCRYSTALLINE COPPER BY HOT AND COLD COMPACTION : CHARACTERIZATION OF MECHANICAL AND ELECTROCHEMICAL PROPERTIES**
O Elkedim, HS Cao, C Meunier, E Gaffet - MECHANICALLY ALLOYED, METASTABLE AND NANOCRYSTALLINE MATERIALS, PART 2 (Series: MATERIALS SCIENCE FORUM), 1998, Vol 269-2, 2, pp 843-848
- [12] THE MICROSTRUCTURE AND ELECTRICAL PROPERTIES OF MECHANICALLY-ALLOYED COPPER-POLYMER COMPOSITES**
M Karttunen, P Ruuskanen - MECHANICALLY ALLOYED, METASTABLE AND NANOCRYSTALLINE MATERIALS, PART 2 (Series: MATERIALS SCIENCE FORUM), 1998, Vol 269-2, 2, pp 849-85
- [11] STRUCTURE AND MAGNETIC PROPERTIES OF HYDROGENATED PR(CO₁-XCUX)₅ INTERMETALLICS AND MECHANICALLY ALLOYED CU-20%CO SYSTEMS**
AY Yermakov, NV Mushnikov, MA Uimin, NK Zajkov, AY Korobeinikov, AK Shtolz, VV Serikov - MECHANICALLY ALLOYED, METASTABLE AND NANOCRYSTALLINE MATERIALS, PART 2 (Series: MATERIALS SCIENCE FORUM), 1998, Vol 269-2, 2, pp 907-912
- [10] MAGNETIC PROPERTIES OF NANO-PARTICULATE CU-CO ALLOY ON THE ROUTE OF BULK MECHANICAL ALLOYING**
C Zhou, T Aizawa, K Tokumitsu, K Tatsuzawa, J Kihara - MECHANICALLY ALLOYED, METASTABLE AND NANOCRYSTALLINE MATERIALS, PART 2 (Series: MATERIALS SCIENCE FORUM), 1998, Vol 269-2, 2, pp 913-918
- [9] HEXAFERRITE-MAGNETITE NANOCOMPOSITE PERMANENT MAGNETS PRODUCED BY MECHANICAL ALLOYING**
A Calleja, X Obradors, A Roig, B Martinez, S Pinol, F Sandiumenge - MECHANICALLY ALLOYED, METASTABLE AND NANOCRYSTALLINE MATERIALS, PART 2 (Series: MATERIALS SCIENCE FORUM), 1998, Vol 269-2, 2, pp 943-948
- [8] MECHANICAL ALLOYING AND MAGNETIC PROPERTIES OF FE₉₀SB₁₀ AND FE₁₅SB₈₅ SYSTEMS**
M KisVarga, DL Beke, S Meszaros, K Vad, G Kerekes, L Daroczi - MECHANICALLY ALLOYED, METASTABLE AND NANOCRYSTALLINE MATERIALS, PART 2 (Series: MATERIALS SCIENCE FORUM), 1998, Vol 269-2, 2, pp 961-966
- [7] PROCESSING AND MECHANICAL PROPERTIES OF NANOCRYSTALLINE ALLOYS PREPARED BY SEVERE PLASTIC DEFORMATION**
RZ Valiev, RK Islamgaliev, VV Stolyarov, RS Mishra, AK Mukherjee - MECHANICALLY ALLOYED, METASTABLE AND NANOCRYSTALLINE MATERIALS, PART 2 (Series: MATERIALS SCIENCE FORUM), 1998, Vol 269-2, 2, pp 969-974
- [6] ANELASTIC BEHAVIOUR OF NANOCRYSTALLINE ALUMINIUM PREPARED BY MECHANICAL ATTRITION**
E Bonetti, L Pasquini, E Sampaolesi - MECHANICALLY ALLOYED, METASTABLE AND NANOCRYSTALLINE MATERIALS, PART 2 (Series: MATERIALS SCIENCE FORUM), 1998, Vol 269-2, 2, pp 999-1004
- [5] STRUCTURAL AND ELASTIC PROPERTIES OF NANOCRYSTALLINE IRON AND NICKEL PREPARED BY BALL MILLING IN CONTROLLED THERMODYNAMIC ENVIRONMENT**
E Bonetti, EG Campari, L Pasquini, E Sampaolesi, G Valdre - MECHANICALLY ALLOYED, METASTABLE AND NANOCRYSTALLINE MATERIALS, PART 2 (Series: MATERIALS SCIENCE FORUM), 1998, Vol 269-2, 2, pp 1005-1010
- [4] PROPERTIES INDUCED BY MECHANICAL MILLING IN THE SYSTEM SR₁-XCAXCUO₂**
E Herrero, J Alonso, M ValletRegi, JM GonzalezCalbet, A Hernando - MECHANICALLY ALLOYED, METASTABLE AND NANOCRYSTALLINE MATERIALS, PART 2 (Series: MATERIALS SCIENCE FORUM), 1998, Vol 269-2, 2, pp 1019-1024
- [3] MECHANO-SYNTHESIS OF NIOBIUM-ALUMINUM SUPERCONDUCTORS FOR HIGH FIELD APPLICATIONS**
A Calka, D Wexler, J Zhou, MD Sumption, EW Collings - MECHANICALLY ALLOYED, METASTABLE AND NANOCRYSTALLINE MATERIALS, PART 2 (Series: MATERIALS SCIENCE FORUM), 1998, Vol 269-2, 2, pp 1043-1048
- [2] HYDROGEN STORAGE PROPERTIES OF NANOCRYSTALLINE MG₂NIXCU_{1-X} SYNTHESIZED BY MECHANICAL ALLOYING**

G Liang, S Boily, J Huot, A VanNeste, R Schulz - MECHANICALLY ALLOYED, METASTABLE AND NANOCRYSTALLINE MATERIALS, PART 2 (Series: MATERIALS SCIENCE FORUM), 1998, Vol 269-2, 2, pp 1049-1053

[1] POROUS NANOCRYSTALLINE ALLOYS PREPARED BY HIGH ENERGY BALL MILLING

R Schulz, G Lalande, J Huot, S Boily, MC Denis, S Bouaricha, D Guay, JP Dodelet - MECHANICALLY ALLOYED, METASTABLE AND NANOCRYSTALLINE MATERIALS, PART 2 (Series: MATERIALS SCIENCE FORUM), 1998, Vol 269-2, 2, pp 1055-1059

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**Les membres du RFM ayant déjà réglé leur cotisation sont indiqués sur l'annuaire par (1998)
(Members having paid the RFM contribution are indicated by (year) in the RFM list)**

Bulletin d'adhésion 1998 / Subscription Print

(à retourner à l'adresse suivante - to be sent at the following address) :

Eric GAFFET

UPR CNRS 423 - Groupe "Nanomatériaux : Elaboration et Transitions de Phases Hors Equilibre"
IPSé - F90010 - Belfort Cedex - France

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