

LMDC

LISTE DES PUBLICATIONS ET AUTRES PRODUCTIONS 2005

I. PUBLICATIONS

I.1 ARTICLES DANS DES REVUES INTERNATIONALES AVEC COMITE DE LECTURE

- ACL 1 **Bejan A., Lorente S.**
Constructural multi-scale and multi-objective structures
Int J. Energy Research, Vol. 29, 2005, pp. 689-710
- ACL 2 **Bertron A., Duchesne J., Escadeillas G.**
Accelerated tests of hardened cement pastes alteration by organic acids : Analysis of the Ph effect
Cement and Concrete Research, Vol. 35, N° 1, 2005, pp. 155-166
- ACL 3 **Bertron A., Duchesne J., Escadeillas G.**
Attack of cement pastes exposed to organic acid in manure
Cement and Concrete Composites, Vol. 27, N° 9-10, 2005, pp. 898-909
- ACL 4 **Boukhelifa L., Moroni N., James S-G., Thiercelin M-J., Lemaire G.**
Evaluation of cement systems for oil and gas-well zonal isolation in a full-scale annular geometry
SPE Drill. Complet., Vol. 20, Issue 1, Pages 44-53, Mars 2005
- ACL 5 **Cyr M., Lawrence P., Ringot E.**
Mineral admixtures in mortars. Quantification of the physical effects of inert materials on short-term hydration
Cement and Concrete Research, Vol. 35, 2005, pp. 719-730
- ACL 6 **Da Silva A-K., Lorente S., Bejan A.,**
Constructural multi-scale structures with asymmetric heat sources of finite thickness
Int J. Heat Mass Transfer, Vol. 48 (13), 2005, pp. 2662-2672
- ACL 7 **Douche-Portanguen A., Prince W., Lutz T., Arliquie G.**
Detection or quantitative analysis of a corrosion inhibitor, the sodium monofluorophosphate, in concrete,
Cement and Concrete Composites, Vol. 27, N° 6, July 2005, pp. 679-687
- ACL 8 **Douche-Portanguen A., Prince W., Malric B., Arliquie G.**
Study of interactions between sodium monofluorophosphate and hardened cement paste and their consequences on concrete transfer properties,
Cement and Concrete Research, Vol. 35, N° 9, 2005, pp. 1714-1723
- ACL 9 **Frizon F., Lorente S., Auzuech C.**
Nuclear decontamination of cementitious materials by electrokinetics : an experimental study
Cement and Concrete Research, Vol.35, 2005, pp. 2018-2025
- ACL 10 **Granju J.-L., Balouch S.-U.**
Corrosion of steel fibre reinforced from the crack
Cement and Concrete Research, Vol. 35, 2005, pp. 572-577

- ACL 11 **Khitab A., Lorente S., Ollivier J.-P.**
 Predictive model for chloride penetration through concrete
Magazine of Concrete Research
- ACL 12 **Laurens S., Balayssac J.-P., Rhazi J., Klysz G., Arliguie G.**
 Non-destructive evaluation of concrete moisture by GPR: experimental study and direct modelling,
Materials and Structure, Vol. 38, N° 283, 2005, pp. 827-832
- ACL 13 **Lawrence P., Cyr M., Ringot E.**
 Mineral admixtures in mortars. Effects of type, amount and fineness of fine constituents on
 compressive strength
Cement and Concrete Research, Vol 35, 2005, pp. 1092-1105
- ACL 14 **Lemaire G., Escadeillas G., Ringot E.**
 Evaluation concrete surfaces using image analysis process
Construction and Building Materials, Vol. 19, 2005, pp. 604-611
- ACL 15 **Lorente S., Bejan A.**
 Sveltiness, freedom to morph, and constructal multi-scale flow structures
Int. J. Therm. Sci., Vol. 44, Issue 12, Pages 1123-1130, Dec. 2005
- ACL 16 **Mouret M., Bascoul A., Escadeillas G.**
 Strength impairment of concrete mixed in hot weather: analysis in relation to physical and
 chemical properties of hardened concrete
Magazine of Concrete Research, Vol 57, N° 5, June 2005, pp. 301-308
- ACL 17 **Reguigui N., Sfar-Felfoul H., Ben Ouezdou M., Clastres P.**
 Radionuclide levels and temporal variation in phosphogypsum
Journal of Radioanalytical and Nuclear Chemistry, Vol. 264, N° 3, 2005, pp. 719-722
- ACL 18 **Soylev A., François R.**
 Corrosion of reinforcement in relation to presence of defects at the interface between steel and
 concrete
Journal of Materials in Civil Engineering, ASCE, Vol. 17, N°4, Aug. 1, 2005, pp. 447-455
- ACL 19 **Turatsinze A., Bonnet S., Granju J.-L.**
 Mechanical characterisation of cement based mortar incorporating rubber aggregates from
 recycled worn tyres
Building and Environment, Vol. 40, N° 2, 2005, pp. 221-226
- ACL 20 **Turatsinze A., Granju J.-L., Sabathier V., Farhat H.**
 Durability of bonded cement-based overlays: effects of metal fibre reinforcement
Materials and Structures, Vol. 38, N° 277, 2005, pp. 321-327
- ACL 21 **Wechsato W., Bejan A., Lorente S.**
 Tree-shaped flow architectures: Strategies for increasing optimization speed and accuracy
Numer. Heat Tranf. A-Appl., Vol. 48, 8, pp. 731,744
- ACL 22 **Wechsato W., Lorente S., Bejan A.**
 Tree-shaped networks with loops
Int. J. Heat Mass Transfer, Vol. 48, 2005, pp. 573-583

I.2 ARTICLES DANS DES REVUES AVEC COMITE DE LECTURE NON REPERTORIEES

- ACLN 1 **Bertron A., Coutand M., Cameleyre X., Escadeillas G., Duchesne J.**
L'attaque chimique et biologique des effluents agricoles et agroalimentaires sur les matériaux cimentaires
Matériaux et Techniques, Vol. 93, hors série, 2005, pp. 111-121.
- ACLN 2 **Bejan A., Lorente S.**
Constructural theory of energy-system and environment flow configurations
Int J. Exergy, Vol. 2(4), 2005, pp. 335-347
- ACLN 3 **Bejan A., Lorente S.**
Constructural design and thermodynamic optimization
Annual Reviews of Heat Transfer, Vol. 14, 2005, chapter 1
- ACLN 4 **Fanutza K., Toumi A., Bascoul A.**
Fissuration d'un mortier haute performance renforcé de microfibres métalliques- Approche expérimentale et numérique
Annales du Bâtiment et Travaux Publics, Février 2005-N° 1
- ACLN 5 **Naadia T., Mouret M., Kharchi F.**
Effet de la taille des granulats sur le comportement rhéologique des bétons - application aux BAP
Algérie Equipement, 39, 2005, pp. 21-24
- ACLN 6 **Sfar Felfoul H., Ben Ouezdou M., Clastres P.**
Etude du phosphogypse de Sfax en vue d'une valorisation en technique routière
Annales de l'Equipement (Tunisie), Vol. 15, n°1, 1er semestre 2005

I.3 CONFERENCES INVITEES

- INV 1 **Balayssac J.-P., Klysz G., Laurens S., Sbartai Z.-M., Arliguie G.**
Cover Concrete Evaluation: The Contribution of GPR Technique - Experimental Studies and Field Measurements
6th Int. Congress, GLOBAL CONSTRUCTION : Ultimate Concrete Opportunities, 1-2 July 2005, Dundee, Scotland
- INV 2 **Clastres P.**
Matières premières secondaires et développement durable
6^{ème} Edition des journées scientifiques du (RF)²B, 5 juillet 2005, Lyon
- INV 3 **Granju J.-L., Turatsinze A.**
Repairs by the thin bonded overlay technique : the RILEM TC 193-RLS and last finding about the debonding mechanism (keynote paper)
Int. Conf. on Concrete Repair, Rehabilitation and Retrofitting, ICCRRR 2005, November 21-23, 2005, Cape Town (South Africa)

I.4 COMMUNICATIONS AVEC ACTES DANS UN CONGRES INTERNATIONAL

- ACTI 1 **Alcantara M., Mouret M., Pons G., Granju J.-L.**
Self compacting concrete with hybrid fiber reinforcement : workability and mechanical behaviour
SCC 2005 combining the second North American conference on the design and use of self-compacting concrete (SCC) and the fourth international RILEM symposium on self-compacting concrete, october 30-novembre 2, 2005, Chicago (USA)

- ACTI 2 **Assié S., Escadeillas G., Waller V.**
Delayed behaviour of self compacting concrete
CONCREEP 7, Ecole Centrale de Nantes, 12-14 septembre 2005, Nantes (France)
- ACTI 3 **Assié S., Escadeillas G., Waller V.**
Self Compacting and vibrated concrete compared by physico-chemical durability properties.
SCC 2005 combining the second North American Conference on the design and use of self-compacting concrete (SCC) and the fourth international RILEM symposium on self-compacting concrete, October 30- Novembre 2, 2005, Chicago (USA)
- ACTI 4 **Aubert J.-E., Husson B., Vaquier A.**
MSWI Fly ash treated by REVASOL process : effects on cement-based materials
1st Int. Conf. On Engineering for Waste Treatment - WASTEENG 2005 - 17-19 mai 2005, Albi (France) - ISBN 2-9511591-4-5
- ACTI 5 **Audiger B., Baudracco J., Escadeillas G., Pages A., Salmon R.**
Mechanicals Properties of mortars having powdered glass based binders,
1st Int. Conf. On Engineering for Waste Treatment - WASTEENG 2005 - 17-19 mai 2005, Albi (France) - ISBN 2-9511591-4-5
- ACTI 6 **Audiger B., Escadeillas G., Baudracco J., Pagès A., Salmon R.**
Dissolutions Mechanisms of Powdered Glass
1st Int. Conf. On Engineering for Waste Treatment - WASTEENG 2005 - 17-19 mai 2005, Albi (France) - ISBN 2-9511591-4-5
- ACTI 7 **Balayssac J.-P., Klysz G., Laurens S., Sbartai Z.M., Arliguie G.**
Cover Concrete Evaluation : The Contribution of GPR Technique Experimental Studies and field Measurements
6th International Congress on Global Construction : Ultimate Concrete Opportunities, 5-7 july 2005, Dundee (Scotland)
- ACTI 8 **Bejan A., Lorente S.**
Freedom vs. Performance and the evolutionary development of multi-scale hierarchical flow structures
Second International Conference on applied Thermodynamics, pp. 1-6, 18-20 mai 2005, Istanbul (Turkey) (Keynote paper)
- ACTI 9 **Bertron A., Duchesne J., Escadeillas G.**
Leaching of cement pastes exposed to the action of manure organic acids: comparison of the relative aggressiveness of the different acids.
6th International Congress on Global Construction, July 5-7, 2005, University of Dundee (Scotland)
- ACTI 10 **Buffo-Lacarriere L., Sellier A.**
Compressive basic creep and leaching weak coupling
CONCREEP 7, Ecole Centrale de Nantes, 12-14 septembre 2005, Nantes (France)
- ACTI 11 **Cyr M., Coutand M., Idir R., Clastres P.**
Characterisation of meat and bone meal (MBM) bottom ash in mortars
1st Int. Conf. On Engineering for Waste Treatment - WASTEENG 2005 - 17-19 mai 2005, Albi (France) - ISBN 2-9511591-4-5
- ACTI 12 **Duprat F., Sellier A.**
Probabilistic assessment of corrosion due to carbonation.
Workshop on Probability and Materials: from Nano - to Macro-Scale, Johns Hopkins University, January 5-7, 2005, Baltimore (USA)

- ACTI 13 **El Barrak M., Mouret M., Bascoul A., Ringot E.**
 A new approach to study grading curves. Application to concrete equivalent mortars for self compacting concrete,
SCC 2005 combining the second North American Conference on the design and use of self-compacting concrete (SCC) and the fourth international RILEM symposium on self-compacting concrete, October 30- Novembre 2, 2005, Chicago (USA)
- ACTI 14 **Fajardo G., Escadeillas G., Arliquie G.**
 Extraccion electroquimica de cloruros (EEC) aplicada en concretos fabricados con ceniza volante
CONPAT 2005, Asuncion, Paraguay, Sept 2005
- ACTI 15 **Fanutza K., Toumi A., Bascoul A.**
 Residual performance of fatigue cracked fibre reinforced concrete
3rd International Conference Composite in Construction, CCC 2005, 11-13 july, 2005, Lyon (France)
- ACTI 16 **François R., Toumi A., Ismail M., Castel A., Gagné R.**
 Effects of cracks on local diffusion of chloride and on long-term corrosion behaviour of reinforced concrete
Durability of reinforced concrete under combined mechanical and climatic loads - CMCL Workshop, 27-28 october 2005, Qingdao (China)
- ACTI 17 **Grimal E., Sellier A., Petre-Lazar, I., Le Pape Y., Bourdarot E.**
 Influence of the basic creep on the modelling of concrete structures subjected to alkali aggregate reaction
CONCREEP 7, Ecole Centrale de Nantes, 12-14 septembre 2005, Nantes (France)
- ACTI 18 **Guemmadi Z., Escadeillas G., Houari H., Clastres P., Toumi B.**
 Influence of Limestone Fillers on the mechanical Performance of cement Pastes
6th International Congress on Global Construction : Ultimate Concrete Opportunities, Vol pp. 339-350, 5-7 july 2005, Dundee (Scotland)
- ACTI 19 **Lorente S., Bejan A.**
 Sveltiness, freedom to morph, and the constructal design of multi-scale flow structures
ASME Congress, November 2005, Orlando (Floride-USA)
- ACTI 20 **Tran Q.-T., Toumi A., Granju J.-L.**
 Interface between an old concrete and an overlay
3rd International Conference Composite in Construction, CCC 2005, 11-13 july, 2005, Lyon (France), pp 1235-1242
- ACTI 21 **Turatsinze A., Granju J.-L., Bonnet S.**
 Effect of rubber aggregate incorporation on the resistance of cement-based mortar to shrinkage cracking
Int. Conf. on Concrete Repair, Rehabilitation and Retrofitting, ICCRRR 2005, November 21-23, 2005, Cape Town (South Africa)
- ACTI 22 **Vidal T., Assié S., Pons G.**
 Creep and shrinkage of self compacting concrete and comparative study with model code
CONCREEP 7, Ecole Centrale de Nantes, 12-14 septembre 2005, Nantes (France)

I.5 COMMUNICATIONS AVEC ACTES DANS UN CONGRES NATIONAL

- ACTN 1 **Carasek E., Bertron A., Cascuso O., Castro A., Ollivier J.-P.**
Analyse das variações da microestrutura do concreto de cobrimento por meio de microsonda eletrônica.
47^{ème} Congrès International Brésilien IBRACON, septembre 2005, Brésil
- ACTN 2 **Duprat F., Sellier A., Nguyen X.-S.**
Approche probabiliste de la durabilité des ouvrages en béton exposés à la carbonatation
Journées Nationales de Fiabilité des Matériaux et des Structures, 25-26 octobre 2005, Clermont Ferrand (France)
- ACTN 3 **El Barrak M., Mouret M., Bascoul A., Clastres P.**
Etude de l'interaction pâte-granulats à l'état frais en vue d'une méthodologie de formulation des bétons autoplaçants
Colloque Méditerranéen sur les Matériaux, 6-7 décembre 2005, Oran (Algérie)
- ACTN 4 **Sellier A., Duprat F., Petre-Lazar I., Grimal E., Le Pape Y., Boudarot E.**
Etude de la sensibilité aux variables aléatoires d'un modèle numérique pour le calcul de structures en béton atteintes par la réaction alcali silice
Journées Nationales de Fiabilité des Matériaux et des Structures, 25-26 octobre 2005, Clermont Ferrand (France)

I.6 COMMUNICATIONS ORALES SANS ACTES DANS UN CONGRES INTERNATIONAL OU NATIONAL

- COM 1 **Bertron A.**
Durabilité des matériaux cimentaires soumis à l'action des acides organiques des milieux agricoles et agroalimentaires
23^{èmes} Rencontres Universitaires de Génie Civil - AUGC 2005, 26 & 27 Mai 2005, Grenoble (France)
- COM 2 **Bertron A., Coutand M., Cameleyre X., Escadeillas G.**
L'attaque chimique et biologique des effluents agricoles et agroalimentaires sur les matériaux cimentaires
VII^{ème} forum Biodétérioration des Matériaux, Mai 2005, Caen (France)
- COM 3 **Cyr M., Aubert J.-E., Husson B., Julien S., Clastres P.**
Gestion des résidus minéraux dans les matrices cimentaires
23^{èmes} Rencontres Universitaires de Génie Civil - AUGC 2005, 26 & 27 mai 2005, Grenoble (France)
- COM 3b **El Barrak M., Mouret M., Bascoul A., Clastres P.**
Etude de l'interaction pâte-granulats à l'état frais en vue d'une méthodologie de formulation des BAP
Colloque méditerranéen sur les matériaux, 6&7déc 2005 Oran (Algérie)

I.7 OUVRAGES SCIENTIFIQUES OU CHAPITRES D'OUVRAGES

- OS 1 **Balayssac J.-P.**
Méthodologie d'évaluation non destructive de l'état d'altération des ouvrages en béton - Chapitre C4 : L'apport des études de laboratoire et sur sites tests - pp 403-420
Edition: O. Abraham et D. Breyssse, AFGC-COFREND, Presses de l'ENPC, 2005, N° ISBN 2-85978-405-5

- OS 2 **Balayssac J.-P., Chau B.**
Méthodologie d'évaluation non destructive de l'état d'altération des ouvrages en béton armé -
Chapitre A3 : L'évaluation de l'état du matériau - pp 53-76
Edition: O. Abraham et D. Breysse, AFGC-COFREND, Presses de l'ENPC, 2005, N° ISBN 2-85978-405-5
- OS 3 **Bejan A., Lorente S.**
La loi Constructale (109 p)
L'Harmattan, Paris 2005, ISBN: 978-2747584173
- OS 4 **Cascudo O., Carasek H. Yssorche-Cubaynes M.-P., Lopez A., Ollivier J.-P.**
Evaluation of cover concrete by analysis of chloride diffusion coefficients
Special Publication Quality of concrete Structures and recent advances in concrete materials and testing. American Concrete Institute - ACI, pp. 135-149 (SP 229-9), ISBN 0-87031-182-4, 2005
- OS 5 **Dérobot X., Garnier V., François D., Laurens S., Lataste J.-F.**
Méthodologie d'évaluation non destructive de l'état d'altération des ouvrages en béton - Chapitre
C3 : Complémentarité des méthodes d'END
Edition: O. Abraham et D. Breysse, AFGC-COFREND, Presses de l'ENPC, 2005, N° ISBN 2-85978-405-5

I.8 BREVET

- BR 1 **Ayrinhac F., Bursi P., Carles-Gibergues A., Clastres P., Hochard J., Martin P., Ollivier J.**
Ciment composé avec de la cendre LFC et béton contenant ladite cendre
Brevet Français FR 0502158