

ANNEX - PERSONAL FILE - Serge R. DALLAIRE

PUBLICATIONS OFFICIELLES / OFFICIAL PUBLICATIONS

A) IN REFEREED JOURNALS / REVUES AVEC COMITÉ DE LECTURE

S. Dallaire, "Hard Arc-Sprayed Coating with Enhanced Erosion and Abrasion Wear Resistance" Journal of Thermal Spray Technology, 10(4) (2001) 511-519.

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Dallaire S. and Cliche G., "The Influence of Composition and Process Parameters on the Microstructure of TiC-Fe Multiphase and Multilayer Coatings", Surface and Coatings Technology, 50 (1992) 233-239.

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Cliche G. and **Dallaire S.**, "Synthesis of TiC and (Ti,W)C in Solvent Metals", Materials Science and Engineering, A148 (1991) 319-328.

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Brousseau R., Feldman R., **Dallaire S.** and Arnott. "Arc Sprayed Zinc on Reinforced Concrete", ILZRO Project No. ZE-390, July 1991.

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Brunet C. et **Dallaire S.**, "RECHERCHE ET DÉVELOPPEMENT SUR LES MATÉRIAUX POUR LES MACHINES A FUSION THERMONUCLÉAIRE", Rapport semestriel 83-224-01, le 20 janvier 1984.

Cielo P. et **Dallaire S.**, "TRAITEMENT DE SURFACE PAR LASER", Rapport semestriel 83-148-02, le 9 février 1984.

Champagne B. et **Dallaire S.**, 'ÉLABORATION DE POUDRES MÉTALLIQUES, CÉRAMIQUES ET MÉTALLO-CÉRAMIQUES PAR DES TECHNIQUES NON-CONVENTIONNELLES", Rapport semestriel 83-170-02, le 20 février 1984.

Dallaire S., et Parent L., "REVETEMENT-PROJECTION PAR PLASMA", Rapport semestriel 83-07302. le 13 février 1984.

Dallaire S., et Levert H., "RÉPARATION D'UNE SURFACE CÉRAMIQUE AU MOYEN D'UN LASER CONTINU", Rapport IMI 8351-301, le 7 septembre 1984.

Champagne B. et **Dallaire S.**, "ÉLABORATION DE POUDRES MÉTALLIQUES, CÉRAMIQUES ET MÉTALLO-CÉRAMIQUES PAR DES TECHNIQUES NON-CONVENTIONNELLES", Rapport semestriel 83-170-01, le 1er décembre 1983.

Cielo P. et **Dallaire S.**, "TRAITEMENT PAR LASER DE MATÉRIAUX CÉRAMIQUES", Rapport IMI 83-148-091, le 2 novembre 1983.

Cielo P. et **Dallaire S.**, "TRAITEMENT DE SURFACE PAR LASER", Rapport semestriel 83-

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Dallaire S. "SURFACE TREATMENT BY PLASMA (PLASMA SPRAYING)", submitted to IREQ for the Canadian Electrical Association, IMI 83-077-075, CNRC 21355, juin 1983.

Dallaire S. "PROTECTION LATÉRALE DES ÉLECTRODES DE GRAPHITE DES FOURS A ARC", Rapport intérimaire 83-077-071, CNRC 21038, mai 1983.

Dallaire S. "LE REVETEMENT DES ÉLECTRODES DE GRAPHITE - CHOIX DES MATÉRIAUX ET CRITERES DE SÉLECTION", Rapport intérimaire IMI 077-11, le 21 novembre 1980.

Dallaire S. et Angers R., "THE DEVELOPMENT OF PERMEABLE CERAMICS FOR LONG DURATION MHD OPERATION", Rapport SJT Consultants Limited et Université Laval, mai 1979.

Dallaire S. "COMPTE-RENDU DES TRAVAUX EFFECTUÉS AU FOUR ROTATIF A PLASMA CONCERNANT SES POSSIBILITÉS D'APPLICATIONS MÉTALLURGIQUES", Rapport CEN/Saclay - CEN.S. /Dir. 31fp-76/10, le 9 avril 1976.

Dallaire S. "ÉTUDE DE L'ÉLABORATION DU CARBURE DE SILICIUM PAR UNE MÉTHODE TRADITIONNELLE: A PARTIR DE LA SILICE ET DU CARBONE ET PERSPECTIVES DE PURIFICATION DE LA SILICE ET D'ÉLABORATION DE CARBURE DE SILICIUM DANS LE FOUR ROTATIF A PLASMA D'ARCS SUPERPOSÉS" Rapport CEN/Saclay, DCEN/S/ATS/74-463, avril 1974.

THESE

Dallaire S., "CONTRIBUTION A L'ÉTUDE D'UN FOUR ROTATIF ÉLECTRIQUE A ÉLECTRODES GAZEUSES", Thèse de doctorat en physique soutenue le 16 février 1976 à l'Université des Sciences et Techniques de Lille (France), Commissariat à l'Énergie Atomique (ed.) Paris, 1976, p. 1-147.

BREVETS

Dallaire S. and H. Levert, "Erosion Resistant Coatings" **Canadian Patent No. 2 266 814 émis le 11 septembre 2007.**

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Cliche G., **Dallaire S.**, "TiC-Based Materials and Process of Producing Same", **Canadian Patent No. 2,015,213 émis le 14 avril 1998.**

Dallaire S. and H. Levert, "Abrasion Wear Resistant Thermally Sprayed Coatings", **U.S. Pat. 8,630,445 émis le 1ier décembre 1997.**

Cliche G., **Dallaire S.**, "TiC-BASED MATERIALS AND PROCESS OF PRODUCING THE SAME", **U.S. Pat. 5,194,237 émis le 16 mars 1993.**

Champagne B., Arsenault B., Gélinas C., **Dallaire S.**, "Novel Zinc-Based Alloys, Preparation and Use Thereof for Producing Thermal-Sprayed Coatings Having Improved Corrosion Resistance and Adherence", **U.S. Pat. 4,915,906 émis le 10 avril 1990**, Can. Appl. 583,536, 18 nov. 1988.

Dallaire S., Spino D. et Champagne B., "PARTICLE INJECTION DEVICE FOR THERMAL SPRAYING", **Can. Pat. 1,255,974 émis le 20 juin 1989; U.S. Pat. 4,901,921 émis le 20 février 1990.**

Dallaire S., "ANTIOXIDANT BARRIER FOR CARBON-BASED MATERIAL", **U.S. Pat. 4,824,733 émis le 25 avril 1989; Can. Pat. 1,273,898 émis le 11 septembre 1990.**

Hojo J., **Dallaire S.** et Champagne B., "PROCESS AND APPARATUS FOR COATING PARTICLES WITH FINE POWDER", **U.S. Pat. 4,788,080 émis le 29 novembre 1988; Can. Pat. 1,285,433 émis le 2 juillet 1991.**

Dallaire S. et **Champagne B.**, "TiB₂-BASED MATERIALS AND PROCESS OF PRODUCING THE SAME", **U.S. Pat. 4,673,550 émis le 16 juin 1987; Can. Pat. 1,253,717 émis le 9 mai 1989.**

Cielo P. et **Dallaire S.**, "LASER SURFACE COUPLER", **U.S. Pat. 4,480,168, le 30 octobre 1984; Can. Pat. 1,188,783 émis le 6 novembre 1985.**

ACTIVITÉS PROFESIONNELLES

CONFERENCE CHAIRMAN / PRÉSIDENT

Dallaire S. session chairman at the National Thermal Spray Conference, 7-11 juin 1993, Anaheim, CA.

Dallaire S., panéliste invité à the National Thermal Spray Conference, 7-11 juin 1993, Anaheim, CA, pour discuter de Protection of Infrastructure.

Dallaire S., member of the committee of awards at the National Thermal Spray Conference, 7-11 June, 1993.

Dallaire S., session chairman at the International Thermal Spray Conference, 28 May - 5 June 1992, Orlando, Fa.

Dallaire S., member of the committee of awards at the International Thermal Spray Conference, 28 may - 5 June 1992, Orlando, Fa.

Dallaire S., **(invited)** chairman of sessions at the 2nd Japan International Society for the Advancement of Material and Process Engineering Symposium, Chiba, Japan, December 10-15, 1991.

Dallaire S., **(invited)** chairman for the Symposium on Current Problems and Directions in Plasma-Spray Processing, Brookhaven National Laboratory, Upton, New York, September 23-25, 1991

Dallaire S., session chairman at the 4th National Thermal Spray Conference, 4 - 10 May 1991, Pittsburgh, Pa.

Dallaire S., président du Second Symposium on Thermal Spraying, IMI, Boucherville, November 28-29, 1990.

Dallaire S., président du Colloque "Les céramiques industrielles des années 1990, 58ième Congrès de l'ACFAS, Ste-Foy, 17-18 mai 1990

Dallaire S., program chairman of the 28th Conference of metallurgists (CIM), 20-24 August 1989, Halifax.

Dallaire S., président du Symposium on Plasma Spraying: Fundamental and Practical Aspects, IMI, Boucherville, May 11-12, 1989.

Dallaire S., président du Colloque "Matériaux et Surfaces" des Deuxièmes entretiens du Centre Jacques Cartier, Boucherville, 12-14 octobre 1988.

Dallaire S., member of the organizing committee of the International Thermal Spraying Conference, Montréal, 1986 and session chairman.

DIVERS / MISCELLANEOUS

Dallaire S., member of the editorial board of the Journal of Thermal Spray Technology, 1992-2001.

Dallaire S., Evaluation d'un candidat au poste de professeur (associate professor) pour la faculté de science et génie de la State University of New York.

Dallaire S., Evaluation d'un poste de professeur (full professor) pour la faculté de science et génie de la State University of New York .

Dallaire S., membre du comité d'évaluation d'un professeur de l'INRS.

Dallaire S., "Les revêtements résistant à des températures élevées" Émission radiophonique CBF-FM, 29 décembre, 19:00 à 19:30.

Dallaire S., American Management Association, cours "How to Successfully Transfer Products and Processes from R & D to Manufacturing, August 8-9, 1988.

Dallaire S., Cours sur "Les métaux réfractaires: propriétés générales, mise en forme et métallurgie, propriétés spécifiques et applications". Cours de 4 heures donné au Cegep André Laurendeau, mai 1986 et Cegep Limoilou, décembre 1988.

Dallaire S., Membre de l'Editorial Board de Surfacing Journal de 1985 à 1988.

Dallaire S., examinateur des thèses de doctorat de: C. Allaire (Polytechnique), R. Langlois (Polytechnique), M. Gagné (Sherbrooke).

Dallaire S., examinateur des thèses de maîtrises de C. Allaire (Polytechnique), C. Gélinas (Laval), D. Fournier (UQAM), L. Desrosiers (Laval), G. Cliche (Polytechnique), S. Dorval (Polytechnique).

Dallaire S., examinateur des thèses de doctorat de Khaled Cherif (Ecole Polytechnique de Montréal, le 7 avril 1995), Xian Liang Jiang (Université de Sherbrooke, le 29 août 1994), S. Gowri (Université de Madras, juin 1994), Ajit Prasad S.L. (Université de Madras, juin 2000).

AWARDS / RÉCOMPENSES

- **1994** : Award for Best Paper presented at the 6th National Thermal Spray Conference, Boston, MA, 20-24 June 1994, Paper entitled: "Copper-Ceramic Composite Coatings for Steel Strip Casting" by J.-G. Legoux and S. Dallaire (all of Industrial Materials Institute of NRCC).
- **1993** : Award for Best Paper presented at the 5th National Thermal Spray Conference, 7-11 June 1993, Anaheim, CA. Paper entitled: "Characterization of Wear Damages in Coatings by Optical Profilometry" by S. Dallaire, M. Dufour et B. Gauthier (all of Industrial Materials Institute of NRCC).
- **1992** : Alfred W. Allen Award for the highest level of technical quality of the paper entitled "Basic Phosphate-Bonded Castables from Dolomitic- Magnesite Clinkers" by C. Allaire, S. Dallaire and M. Rigaud published in the Journal of the American Ceramic Society in 1989.
- **1991** : Award for the best paper presented at the 1991 National Thermal Spray Conference, Pittsburgh entitled "Thermal Shock Resistance of Plasma-Sprayed TiC Coatings on Macroroughened Substrates" by F. Bordeaux, R. G. Saint-Jacques, (INRS) C. Moreau, S. Dallaire (IMI-NRCC) and J. Lu (CETIM)
- **1983** : Award to attend the Nato Advanced Study Institute on Surface Engineering, Les Arcs, France

AUTRES PUBLICATIONS

S. Dallaire, "New Boride-Based Wear Protection", Global Cement and Lime Magazine, p. 32-34, November 2004