

Ali HENDAOUI (PhD)

Applied Physics / Materials Science

Alfaisal University
College of Science and General Studies
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MAIN EXPERIENCE AREAS

Applied Physics, Advanced Materials and Devices, Energy, Photonics.
Functional Oxides, Nanostructured Materials, Nano-Composites, Smart Materials and Devices, Optical Simulation, Energy-efficiency.

EDUCATION

- **PhD degree in Process Engineering** 2005 - 2008
Galilee Institute, University of Paris 13 (France)
• The SHS, MASHS and ETEPC processes optimization to obtain MAX phases (powders and dense materials) in the Ti-Al-C system.
- **Master degree in Physics. Option: Materials Science** 2001 - 2004
University of Badji Mokhtar (Algeria)
• Synthesis of nanodense titanium carbide by thermal explosion.
- **Bachelor degree in Solid State Physics** 1997 - 2001
University of 8 May 1945 (Algeria)

PROFESSIONAL AND RESEARCH EXPERIENCE

- **Assistant Professor of Physics** 2015/6 to date
Alfaisal University, KSA
- **Research Associate** 2014/7 to 2015/6
Institut National de la Recherche Scientifique (INRS), Canada.
-Development of Smart Materials Thin Films and Devices by PLD and by sputtering.
-Development of Advanced Nano-Composites by Atmospheric Pressure Plasmas.
- **Postdoctoral Fellow** 2011 to 2014
Institut National de la Recherche Scientifique (INRS), Canada.
-Group leader: Vanadium dioxide-based smart coatings and devices.
-Group leader: Atmospheric-Pressure Dielectric Barrier Discharge Process for advanced Nano-composites.
- **Research Fellow** 2010 to 2011
Institut National de la Recherche Scientifique (INRS), Canada.
-Optimization of undoped and tungsten-doped vanadium dioxide films for space applications.

- **Visiting Researcher** 2008 ó 2009
LIMHP Research Center, France.
-Synthesis of high purity Ti_2AlC and Ti_3AlC_2 MAX phases with novel powder metallurgy processes.
- **Research Intern** 2005 ó 2008
LIMHP Research Center, France.
-Development of new powder metallurgy processes to synthesize high purity MAX phases in the Ti-Al-C system.
- **Research Assistant** 2001 ó 2005
LEREC Research Center, Algeria
-Synthesis of nanodense titanium carbide by electro-thermal explosion (ETE) process.

TEACHING/COACHING EXPERIENCE

- **Laboratory security supervisor** 2013 ó 6/2015
Institut National de la Recherche Scientifique (INRS), Canada.
- **Master and PhD students research supervisor** 2011 ó 6/2015
Institut National de la Recherche Scientifique (INRS), Canada.
- **Teaching assistant** 2007 ó 2008
University of Paris13, France
-Combustion ó Standard Flammability Tests

PATENTS

P2. A. Hendaoui, M. Chaker, E. Haddad, óPassively variable emittance device and method for making the sameö, 2014, US 8,908,253 B2 (**December 2014**)

P1. A. Hendaoui, M. Chaker, E. Haddad, óPassively variable emittance device and method for making the sameö, Publication number: CA2833862 A1, Publication type: Application, **Publication date: May 19, 2014.**

AWARDS & FELLOWSHIPS

- **06/2014:** Prize of the best postdoctoral fellow talk (Plasma Quebec 2014 symposium, Montreal, Canada)
- **07/2011 – 06/2013:** “FQRNTö Postdoctoral fellowship (Canada)
- **05/2012:** Prize of the best poster (Plasma Quebec symposium 2012, Montreal, Canada)
- **09/2005 – 07/2008:** óAgence Universitaire de la Francophonieö Doctoral scholarship (France)
- **06/2001:** Prize of the most outstanding graduating student, University of 8 May 1945 (Algeria)

PEER REVIEW ACTIVITIES:

- **Guest Associate Editor** in Frontiers in Materials ó Smart Materials: Main Applications of Smart Materials. *Nature Publishing Group. 01/2015 – to date*
- **Review Editor**
Frontiers in Materials ó Smart Materials. *Nature Publishing Group. 12/2014 – to date*
- **Referee**
 - ✓ Journal of Applied Physics (AIP)
 - ✓ Smart Materials and Structures (IOP)
 - ✓ Applied Surface Science (Elsevier)
 - ✓ Materials Research Bulletin (Elsevier)
 - ✓ Acta Aeronautica (Elsevier)

RELEVANT SKILLS

Scientific and Technical skills

- PVD and CVD thin films deposition (PLD, sputtering, PECVD, e-beam...).
- Nanostructured materials synthesis (Nanowires, nanorods, nanoparticles...).
- Optical Spectroscopy (Raman, Infrared, Ellipsometry).
- Electron spectroscopy: (XPS), Rutherford Back Scattering (RBS).
- X-ray Diffraction (XRD), X-ray Reflectometry (XRR).
- Scanning Probe Microscopy (AFM), Scanning Electron Microscopy (SEM).
- Surface energy measurements (Contact angle method).
- Electrical measurements.
- Conventional Thermal Annealing and Rapid Thermal Annealing processes.
- Inorganic chemistry, Industrial Metallurgy, thermodynamics.
- 5 years hands-on experience in clean room (LMN ó INRS).

Management skills

- Planning and management of different multidisciplinary projects.
- Grant-writing experience.
- Coordinating the resources including different laboratories and research / engineering teams to reach the targets of the defined projects using the operations management tools.
- 4 years experience in industry-university collaborative projects management.

Computer skills

- **Optical:** WVASE32, OpenFilters.
- **Crystallography:** CarIne, Diamond.
- **Data analysis:** Origin, Fityk, Omnic, CasaXPS, XóPert Highscore.
- **Management:** GanttProject, Microsoft Project.
- **General:** Microsoft Office, Photoshop, ImageJ, etc.

LANGUAGES: Perfectly trilingual (English, French and Arabic).

PUBLICATIONS

a. Articles in refereed journals

- J20.** N. Émond, **A. Hendaoui**, M. Chaker, Low resistivity $W_xV_{1-x}O_2$ -based multilayer structure with high temperature coefficient of resistance for microbolometer applications, *Appl. Phys. Lett.*, 2015, 107, 143507 (5 pp.)
- J19.** V.R. Morrison, R.P. Chatelain, K.L. Tiwari, **A. Hendaoui**, A. Bruhacs, M. Chaker, B.J. Sivick, A photoinduced metal-like phase of monoclinic vanadium dioxide, **Science**, 2014, *Vol. 346*, 445-448
- J18.** **A. Hendaoui**, N. Émond, S. Dorval, M. Chaker and E. Haddad, “VO₂-based smart coatings with improved emittance-switching properties for an energy-efficient near room-temperature thermal control of spacecrafts”, *Solar Energy Materials and Solar Cells*, 2013, *Vol. 117*, pp. 494–498
- J17.** **A. Hendaoui**, N. Émond, M. Chaker, and É. Haddad, “Highly tunable-emittance radiator based on semiconductor-metal transition of VO₂ thin films”, *Appl. Phys. Lett.*, 2013, *Vol. 102*, 061107 (4 pp.)
- J16.** **A. Hendaoui**, N. Émond, S. Dorval, M. Chaker and E. Haddad, “Enhancement of the positive emittance-switching performance of thermochromic VO₂ films deposited on Al substrate for an efficient passive thermal control of spacecrafts”, *Current Applied Physics*, 2013, *Vol. 13*, pp. 875- 879
- J15.** P. Anh Do, **A. Hendaoui**, E. Mortazy, M. Chaker, A. Haché, “Vanadium dioxide spatial light modulator for applications beyond 1200 nm”, *Optics Communications*, 2013, *Vol. 288*, pp. 23–26
- J14.** A. Hache, B. Abdel Samad, M. Chaker, **A. Hendaoui**, and S. Vigne, "Electro-optic Switching of VO₂ for Infrared Spatial Light Modulation", in Conference on Lasers and Electro-Optics (CLEO), San Jose, California, United States _ June 9-14, 2013, OSA Technical Digest (online) (Optical Society of America, 2013), paper JW2A.56.
- J13.** M. Andasmas, D. Vrel, N. Fagnon, T. Chauveau, **A. Hendaoui**, P. Langlois, “Phenomenological study of the densification behavior of Aluminum-Nickel powder mixtures during cold isostatic pressing and differential hydrostatic extrusion”, *Powder Technology*, 2011, *Vol. 207*, No. 1-3, pp. 304-310
- J12.** **A. Hendaoui**, D. Vrel, A. Amara, P. Langlois, M. Andasmas, M. Guérioune, “Processing of high-purity polycrystalline MAX phases in the Ti-Al-C system by Mechanically Activated Self-propagating High-temperature Synthesis”, *Journal of the European Ceramic Society*, 2010, *Vol. 30*, No. 4, pp. 1049-1057
- J11.** M. Andasmas, D. Vrel, N. Fagnon, T. Chauveau, **A. Hendaoui**, P. Langlois, “Extrusion-activated thermal explosion applied to intermetallics processing”, *High Pressure Research*, 2009, *Vol. 29*, No 4, pp. 625 – 629
- J10.** **A. Hendaoui**, D. Vrel, A. Amara, P. Langlois, M. Guérioune, “A Novel Method for Synthesis of Low-Cost Ti-Al-C-Based Cermets”, *International Journal of Self-Propagating High-Temperature Synthesis*, 2009, *Vol. 18*, No. 4, pp. 267–272.
- J9.** **A. Hendaoui**, D. Vrel , A. Amara, N. Fagnon, P. Langlois , M. Guérioune, “One Step Synthesis and Densification Of Ti-Al-C-based Cermets By ETEPC”, *International Journal of Self-Propagating High-Temperature Synthesis*, 2009, *Vol. 18*, No. 4, pp. 263–266.

- J8.** A. M. Stolin, D. Vrel, S. N. Galyshev, **A. Hendaoui**, P. M. Bazhin, and A. E. Sytshev, “Hot Forging of MAX Compounds SHS-Produced in the Ti–Al–C System”, *International Journal of Self-Propagating High-Temperature Synthesis*, 2009, *Vol. 18, No. 4*, pp. 194–199.
- J7.** **A. Hendaoui**, M. Andasmas, A. Amara, A. Benaldjia, P. Langlois, and D. Vrel, “Synthesis of High-Purity MAX Compounds by SHS in the Ti–Al–C System”, *International Journal of Self-Propagating High-Temperature Synthesis*, 2008, *Vol. 17, No. 2*, pp. 129–135.
- J6.** **A. Hendaoui**, D. Vrel, A. Amara, A. Benaldjia, and P. Langlois, “Ti–Al–C MAX Phases by Aluminothermic Reduction Process”, *International Journal of Self-Propagating High-Temperature Synthesis*, 2008, *Vol. 17, No. 2*, pp. 125–128
- J5.** D. Vrel, **A. Hendaoui**, P. Langlois, S. Dubois, V. Gauthier, and B. Cochevin, “SHS Reactions in the NiO–Al System: Influence of Stoichiometry”, *International Journal of Self-Propagating High-Temperature Synthesis*, 2007, *Vol. 16, No. 2*, pp. 62–69.
- J4.** W. Ramdane, B. Bendjemil, A. Hafs, **A. Hendaoui**, M. Guerioune, and D. Vrel, “Structural Characterization and Superconducting Properties of MgB₂ Prepared by SHS-Method”, *International Journal of Self-Propagating High-Temperature Synthesis*, 2007, *vol. 16, No. 4*, pp. 207–212.
- J3.** A. Amara, W. Rezaiki, A. Ferdi, **A. Hendaoui**, A. Drici, M. Guerioune, J.C. Bernède and M. Morsli, “Electrical and optical characterisation of CuInS₂ crystals and polycrystalline coevaporated thin films”, *Solar Energy Materials and Solar Cells*, 2007, *vol. 91*, pp. 1916–1921
- J2.** A. Amara, W. Rezaiki, A. Ferdi, **A. Hendaoui**, A. Drici, M. Guerioune, J.C. Bernède and M. Morsli, Electrical properties of CuGaSe₂ single crystals and polycrystalline coevaporated thin films, *Physica Status Solidi (A) Applications and Materials*, 2007, *vol. 204*, pp. 1138–1146
- J1.** M. Ali-Rachedi, **A. Hendaoui**, D. Vrel, W. Bounour, A. Amara and M. Guerioune, “Synthesis of dense TiC-based cermets by electro-thermal explosion under pressure with confinement”, *International Journal of Self-Propagating High-Temperature Synthesis*, 2006, *Vol. 15, No 4*, pp.308–313.

b. Book chapter

- B1.** D. Vrel, **A. Hendaoui** and M. Andasmas, “Synthesis of Ti–Al–C MAX phases by aluminothermic reduction process”, in “M_{n+1}AX_n Phases: Microstructure, Properties and Applications”, Nova Science Publishers, 2012, *ISBN: 978-1-61324-182-0*, pp. 29–52.

c. Conference presentations

- C45.** N. Émond, **A. Hendaoui**, E. Haddad and M. Chaker, “Low resistivity W_xV_{1-x}O₂-based multilayer structure with enhanced temperature coefficient of resistance features for microbolometer applications”, Plasma Quebec symposium, Montréal, Québec, Canada _ 03-05 June, 2015
- C44.** R. Rincón, P. Brunet, **A. Hendaoui**, J. Matos, F. Massines et M. Chaker, “Study of plasma kinetics for the deposition of hydrogenated carbon films by Atmospheric Pressure Dielectric Barrier Discharge”, Plasma Quebec symposium, Montréal, Québec, Canada _ 03-05 June, 2015
- C43.** Kunal Tiwari , Vance Morrison , Robert Chatelain , **Ali Hendaoui** , Andrew Bruhacs , Mohamed Chaker , Bradley Siwick, “Photoinduced phase transitions in vanadium dioxide

revealed by ultrafast electron diffraction and mid-infrared spectroscopy”, APS March Meeting 2015, Volume 60, Number 1; San Antonio, Texas, March 2–6, 2015

- C42.** A. Hendaoui, N. Émond and M. Chaker, “From “smart” Material to “smart” Devices: Novel Applications based on the Insulator-to-Metal Transition in VO₂”, 8th Energy, Materials, and Nanotechnology (EMN) Meeting, November 22 – 25, 2014 (Invited).
- C41.** A. Hendaoui, N. Émond, M. Chaker and E. Haddad, “VO₂-based variable-emittance coatings: An important progress towards energy-efficient smart radiators for nano-satellites”, Plasma Quebec symposium, Montréal, Québec, Canada _ 04-06 June, 2014.
- C40.** R. Rincon, P. Brunet, A. Hendaoui and M. Chaker, “ OES investigation of inorganic SiO₂ deposition by means of N₂ AP-DBD plasmas using TEOS as a precursor”, Plasma Quebec symposium, Montréal, Québec, Canada _ 04-06 June, 2014.
- C39.** P. Brunet, J.B. de Matos, R. Rincon Lievana, A. Hendaoui, M. Chaker and F. Massines, “Étude du transport de nanoparticules dans un plasma à pression atmosphérique pour la réalisation de couches minces nanocomposites”, Plasma Quebec symposium, Montréal, Québec, Canada _ 04-06 June, 2014.
- C38.** N. Émond, A. Hendaoui, M. Chaker, “Influence des paramètres de dépôt de couches minces de VO₂ par ablation laser sur leur modulation dans le domaine THz”, Plasma Quebec symposium, Montréal, Québec, Canada _ 04-06 June, 2014.
- C37.** A. Hendaoui and M. Chaker, “Vanadium dioxide: a “smart” material for “smart” technological opportunities”, The 38th International Conference and Exposition on Advanced Ceramics and Composites (38th ICACC), Daytona Beach, Florida, January 26 - 31, 2014 (Invited).
- C36.** A. Hendaoui, N. Émond, S. Dorval, M. Chaker, É. Haddad, “Highly tunable-emittance VO₂-based smart coatings for a passive thermal control of small satellites”, Conference: Materials Science & Technology 2013, Symposium: Advanced Materials, Processes and Evaluation Methods for Aerospace and Defense Applications, Montréal, Québec, Canada _ October 27-31, 2013.
- C35.** N. Émond, A. Hendaoui, M. Chaker, “Optimization of VO₂ metal-to-insulator transition properties for THz applications”, Conference: Materials Science & Technology 2013, Symposium: Synthesis and Structural and Functional Characterization of Thin Films and Self-assembled Nanostructures, Montréal, Québec, Canada _ October 27-31, 2013.
- C34.** A. Hendaoui, N. Émond, S. Dorval, M. Chaker, É. Haddad, “Highly tunable-emittance VO₂-based smart coatings for a passive thermal control of small satellites”, Plasma Quebec symposium, Montréal, Québec, Canada _ 22-24 May, 2013.
- C33.** N. Émond, A. Hendaoui, M. Chaker, “Optimization of VO₂ metal-to-insulator transition properties for THz applications”, Plasma Quebec symposium, Montréal, Québec, Canada _ 22-24 May, 2013.
- C32.** S. Dorval, A. Hendaoui, A. Lacoste, M. Chaker, “Synthèse et caractérisation de couches minces de VO₂ par pulvérisation magnétron RF réactive”, Montréal, Québec, Canada _ 22-24 May, 2013
- C31.** B.J. Siwick, R.P. Chatelain, V.R. Morrison, A. Hendaoui and M. Chaker, “Structural Dynamics in Vanadium Dioxide and Graphite Studied with Radio-Frequency Compressed Ultrafast Electron Diffraction”, The 3rd Banff Meeting on Structural Dynamics Ultrafast

Dynamics with X-Rays and Electrons, The Banff Centre, Banff, Alberta, Canada_ 17-20 February, 2013

- C30.** E. Haddad, **A. Hendaoui**, M. Chaker, M. BenKahoul, R. Kruzelecky, W. Jamroz, P. Poinas, “Large Tuneability IR Emittance Thermal Control Coating for Space Applications”, 12th International Symposium in Materials in the Space Environment, ESA/ESTEC, Noordwijk, The Netherlands_24-28 September, 2012.
- C29.** N. Émond, **A. Hendaoui**, M. Chaker, É. Haddad, “Fabrication of VO₂-Based smart radiators”, Plasma Quebec symposium, Montréal, Québec, Canada _ 29-31 May, 2012.
- C28.** E. Haddad, M. BenKahoul, R. Kruzelecky, B. Wong, W. Jamroz, M. Soltani, **A. Hendaoui**, M. Chaker and P. Poinas, “Monitoring Thermo-optical Properties of Multilayer Tuneable Emittance Coatings, for Smart Thermal Control in Space Applications”, 41st International Conference on Environmental Systems, Portland, Oregon, USA_17-21 July, 2011
- C27.** **A. Hendaoui**, M. Benkahoul, É. Haddad, M. Chaker, “Fabrication d'un Radiateur Intelligent Passif à base de couches sensibles de VO₂-Dopé par des métaux de transition pour les applications dans le domaine de l'aérospatial”, Plasma Quebec symposium, Montréal, Québec, Canada _ 25-27 May, 2011.
- C26.** N. Émond, **A. Hendaoui**, M. Chaker, “characterisation de couches minces de VO₂ déposées par ablation laser”, Plasma Quebec symposium, Montréal, Québec, Canada _ 25-27 May, 2011.
- C25.** M. Andasmas, D. Vrel, N. Fagnon, T. Chauveau, **A. Hendaoui**, P. Langlois, “Extrusion-activated thermal explosion applied to intermetallics processing”, The European High Pressure Research Group Meetings, 06-11 September, 2009.
- C24.** **A. Hendaoui**, D. Vrel, A. Amara, N. Fagnon, P. Langlois, M. Guérioune, “Novel Method to Synthesise Low-Cost Ti-Al-C MAX Phases-Based Cermets”, X International Symposium on Self-propagating High-temperature Synthesis, Tsakhkadzor, Armenia _ 6-11 July, 2009.
- C23.** **A. Hendaoui**, D. Vrel, A. Amara, N. Fagnon, P. Langlois, M. Guérioune, “One Step Synthesis and Densification Of Ti-Al-C MAX Phases-based Cermets By ETEPC”, X International Symposium on Self-propagating High-temperature Synthesis, Tsakhkadzor, Armenia _ 6-11 July, 2009.
- C22.** M. Andasmas, Th. Chauveau, P. Langlois, **A. Hendaoui**, N. Fagnon, N. Girodon-Boulandet, D. Vrel, “Synthesis of NiAl by extrusion activated thermal explosion (EATE)”, X International Symposium on Self-propagating High-temperature Synthesis, Tsakhkadzor, Armenia _ 6-11 July, 2009.
- C21.** **A. Hendaoui**, D. Vrel, A. Amara, P. Langlois, M. Guérioune, “TiAl_{1-a}Ca_a System Study With MASHS (a = 0.1, 0.5 and 0.9)”, IX International Symposium on Self-propagating High-temperature Synthesis, Dijon, France _ 1-5 July, 2007
- C20.** D. Vrel, **A. Hendaoui**, P. Langlois, S. Dubois, V. Gauthier, B. Cochevin, “SHS Reactions in the NiO-Al System: Time-Resolved X-Ray Diffraction in some Complex Systems”, IX International Symposium on Self-propagating High-temperature Synthesis, Dijon, France _ 1-5 July, 2007.
- C19.** D. Vrel, **A. Hendaoui**, P. Langlois, S. Dubois, V. Gauthier, B. Cochevin, “SHS Reactions in the NiO-Al System: Influence of Stoichiometry”, IX International Symposium on Self-propagating High-temperature Synthesis, Dijon, France _ July 1-5, 2007.

- C18.** A. Amara, **A. Hendaoui**, A. Benaldjia, M. Ali-Rachedi, M. Guerioune, D. Vrel, P. Langlois, “Nouvelle technique pour la synthèse et la densification de matériaux à grains fins (application au TiC), INCONA 2005 (1st International Conference on Nanomaterials and Applications)”, Annaba, Algeria _ 19-21 November 2005.
- C17.** W. Ramdane, B. Bendjemil, **A. Hendaoui**, M. Ali-Rachedi, A. Benaldjia, M. Guerioune, D. Vrel, P. Langlois, “Nanomaterials synthesis by combustion method, INCONA 2005 (1st International Conference on Nanomaterials and Applications)”, Annaba, Algeria _ 19-21 November 2005.
- C16.** A. Amara, **A. Hendaoui**, A. Drici, M. Guerioune, “Electrical properties of CuGaSe₂ single crystals and polycrystalline coevaporated thin films, Thin Film and Nano-structured Materials for Photovoltaics (THINC-PV2)”, E-MRS 2005 Spring Meeting, May 31 – June 3, 2005
- W. Bounour, O. Guellati, W. Ramdane, **A. Hendaoui**, A. Benaldjia, B. Boudour, M. Guerioune D. Vrel et P. Langlois, “Etude du système TiCx – Ni synthétisé par la méthode SHS, Conférence Internationale sur les Revêtements Protecteurs (CIRP - 04)”; Abstracts Book, Blida, Algeria _ 09-11 October 2004. **C15**
- O. Guellati, W Bounour, W. Ramdane, **A. Hendaoui**, A. Benaldjia, A. Boudour, M. Guerioune, D. Vrel, P. Langlois, “Synthèse par combustion auto-propagée et caractérisation de cermets : carbure de titane”, 3^{ème} Congrès international en Sciences et Génie des Matériaux, (CISGM3 _3rd ICMSE), Jijel, Algeria _ 25-27 May 2004. **C14**
- C13.** W. Ramdane, W. Bounour, **A. Hendaoui**, O. Guellati, A. Benaldjia, M. Guerioune, D. Vrel, P. Langlois, “Synthèse et caractérisation de matériaux composites : l'exemple du TiC-Ni-Al₂O₃, 3^{ème} Congrès international en Sciences et Génie des Matériaux, (CISGM3 _3rd ICMSE)”, Algeria _ 25-27 May 2004.
- C12.** O. Guellati, W Bounour, W. Ramdane, **A. Hendaoui**, A. Benaldjia, A. Boudour, M. Guerioune, D. Vrel, P. Langlois, “Synthèse de céramiques par la technique SHS, IX^{ème} Journées Maghrébines des Sciences des Matériaux, Oran, Algeria _ 8-10 May 2004.
- C11.** O. Guellati, W. Bounour, W. Ramdane, **A. Hendaoui**, A. Benaldjia, M. Guerioune, D. Vrel, P. Langlois, “Effet de l'Al sur la synthèse de TiC par auto-combustion (SHS)”, The First International Conference on Molecular and Crystal Dynamics and Physical Properties of solids, Monastir, Tunisia _ 25-27 March 2004.
- C10.** O. Guellati, W. Bounour, W. Ramdane, **A. Hendaoui**, A. Benaldjia, A. Boudour, M. Guerioune, D. Vrel, P. Langlois, “Nouvelle méthode de synthèse des matériaux avancés : application au TiC”, 4^{ème} Journées de Mécanique JM-EMP 2004, Bordj El-bahri, Algeria _ 23-24 March 2004.
- C9.** O. Guellati, M. Ali-Rachedi, W. Bounour, W. Ramdane, **A. Hendaoui**, A. Benaldjia, A. Boudour, M. Guerioune, D. Vrel, P. Langlois, “Elaboration et caractérisation des intermétalliques”, International Congress on Photovoltaic and Wind Energies, Tlemcen, Algérie _ 20-22 December 2003.
- C8.** W. Bounour, M. Ali-Rachedi, A. Boudour, W. Ramdane, **A. Hendaoui**, A. Benaldjia, O. Guellati, M. Guerioune, D. Vrel, P. Langlois, “Etude du composé intermétallique FeAl synthétisé par la méthode SHS”, International Congress on Photovoltaic and Wind Energies, Tlemcen, Algérie _ 20-22 December 2003.
- C7.** W. Ramdane, W. Bounour, **A. Hendaoui**, O. Guellati, A. Benaldjia, M. Ali-Rachedi, A. Boudour, M. Guerioune, D. Vrel, P. Langlois, “Densification et caractérisation des matériaux

cermets par SHS”, International Congress on Photovoltaic and Wind Energies, Tlemcen, Algérie _ 20-22 December 2003.

C6. W. Ramdane, W. Bounour, **A. Hendaoui**, O. Guellati, M. Guerioune, D. Vrel, “Effet de la stoechiométrie et de la granulométrie sur l’élaboration de matériaux cermets par SHS”, Journées Scientifiques et techniques (JST’2003), Skikda, Algeria _ 6-7 December 2003.

C5. W. Ramdane, W. Bounour, **A. Hendaoui**, O. Guellati, A. Benaldjia, M. Ali-Rachedi, A. Boudour, M. Guerioune, D. Vrel, P. Langlois, “Elaboration et densification des matériaux cermets à granulométrie fine par la méthode SHS”, Journées d’Etudes sur les Matériaux (JEM2003), Sidibel-Abbes, Algeria _ 19-20 October 2003.

C4. W. Bounour, O. Guellati, W. Ramdane, **A. Hendaoui**, A. Benaldjia, A. Boudour, M. Ali-Rachedi, M. Guerioune, D. Vrel, P. Langlois, “Nouvelle méthode de synthèse à haute température par auto-combustion”, Journées d’Etudes sur les Matériaux (JEM2003), Sidibel-Abbes, Algeria _ 19-20 October 2003.

C3. **A. Hendaoui**, W. Bounour, W. Ramdane, O. Guellati, A. Boudour, A. Benaldjia, M. Guerioune, D. Vrel, P. Langlois, “Synthèse de cermets nanodenses par explosion thermique ; application au TiC”, Premier séminaire National sur les Polymères et les Matériaux Minéraux, Bejaia, Algeria _ 10-11 September 2003.

C2. O. Guellati, W. Bounour, M. Ali-Rachedi, W. Ramdane, **A. Hendaoui**, A. Benaldjia, A. Boudour, M. Guerioune, D. Vrel, P. Langlois, “Synthèse par auto-combustion à haute température”, Premier séminaire National sur les Polymères et les Matériaux Minéraux, Bejaia, Algeria _ 10-11 September 2003.

C1. W. Bounour, O. Guellati, W. Ramdane, **A. Hendaoui**, A. Benaldjia, A. Boudour, M. Guerioune, D. Vrel, P. Langlois, “Effet de l’ajout de nickel sur la densification des matériaux cermets”, Premier séminaire National sur les Polymères et les Matériaux Minéraux, Bejaia, Algeria _ 10-11 September 2003.

d. Technical reports

T3.A. Hendaoui, “Low Solar Absorptance with Tuneable IR Emittance Thermal Control Coating for Space Applications”, TN06 – 6 Months Report, Recipient: European Space Agency - ESTEC, March 1st, 2012.

T2.A. Hendaoui, “Low Solar Absorptance with Tuneable IR Emittance Thermal Control Coating for Space Applications”, TN05 – 6 Months Report, Recipient: European Space Agency - ESTEC, September 1st, 2011.

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