

STEPI 10  
Polyimides & High Performance Polymers  
June 6-8, 2016  
Montpellier, France

Montpellier, August 18, 2016

## RESUME



Currently Marc J.M. ABADIE is Professor Emeritus (since 2009) at University of Montpellier, Institute Charles Gerhardt of Montpellier - Aggregates, Interfaces & Materials for Energy (ICGM/AIME, UMR CNRS 5253).

He is "Michael Fam" Visiting Professor at the School of Materials Science & Engineering at Nanyang Technological University in Singapore, Full Professor (1st class) at the University of Montpellier and was Head (before retired) of Laboratory of Polymer Science and Advanced Organic Materials - LEMP/MAO.

- o Doctor *honoris causa* from "Gh. Asachi" Technical University in Iasi - Romania.
- o Professor Emeritus @ University Montpellier and " POLYTEHNICA " University of Bucharest.
- o Member of International Eurasian Academy of Sciences.
- o Honorary Member of the Ukraine Academy of Sciences.
- o Honorary Fellowship of the Australian Institute of High Energetic Materials.

### Qualification

A Chemical engineer from Pasteur University of Strasbourg (F) in 1961, Professor Abadie received his Master of Science (1961) and PhD 1963 (3<sup>rd</sup> cycle) and later his Doctorat es Physical Sciences on "Oxidative Degradation of PS by gamma Ray" in 1972 at the "Centre de Recherche sur les Macromolécules" CRM in Strasbourg (F) - Institut Charles Sadron, Pr Henri Benoit as adviser.

### Professional Expertise

He was successively :

- o Engineer R & D at SNPA/Total (1963 - 1967)
- o Research Fellow at CNRS/CRM (1967 - 1972)
- o Associate Professor at U. Montpellier (1972 - 1975)
- o Senior Scientist Officer at "Propellants, Explosives and Rocket Motor Establishment" PERME/UK Ministry of Defence at Waltham Abbey - UK (1975 - 1976)
- o Full Professor at U. Algiers and Director of Laboratory of Polymer Science (1976 - 1980)
- o Full Professor at U. Montpellier (1980 - 1982 and 1987-2007)
- o IBM'er in Endicott NY, USA (1982 - 1986)
- o Michael Fam Fellow, Visiting Professor @ NTU, Singapore (2001 & 2005-present time)
- o Emeritus Professor at U. Montpellier (since 2009)

### Relevant Expertise

Professor Abadie' present research concern : Composites & Nanocomposites, High Performance Polymers, Adhesives, Photosensitive Products, Photoresists, Photocalorimetry and Biomaterials.

- o He is/was consultant for IBM, DuPont Electronics, Ethyl Corp. and Dental Medical Diagnostic Systems in the USA.
- o He is/was consultant for Rhône-Poulenc, Elf, LETI, Stento, Delta, IBM, SPAD, Ivoclar AGP, Cellulose, Gem Plus, Euracli and Veritas in France; Wacker Chemie GmbH in Germany & Lamberti spa in Italy.
- o Over 400 papers (412 peer reviewed publications), 12 books and 12 patents.
- o He received the 1991 ADER Award for Transferring Technology to the Industry.
- o He is appointed Expert Witness and Expert to the Commission of the European Communities.
- o Nominated by the French Government Official Examiner in Chemistry to the Concours at "Ecole Polytechnique" (1991-1997).
- o He created in 1988 STEPI "European Technical Symposium on Polyimides and other High-Performance Polymers" which held in Montpellier every other two/three years; last STEPI 9 was held in June 3-5, 2013 @ Polytech/Montpellier, France ; the next one - STEPI 10 is sheduled in June 2016.
- o Recently, with Prof Omari Muckbaniani, he created the International Caucasian Symposium on Polymers & Advanced Materials ICSP&AM in Tbilisi (Georgia). ICSP&AM3 was held in September 1-4 September 2014. Next one is scheduled on July 2016.

### Thesis

16 Thesis "Doctorat es Sciences" - 8 Thesis "Doctorat Ingénieur" - 26 PhD Thesis  
32 "Mémoires d'Ingénieur" - 61 "Diplômes d'Etudes Approfondies"  
in 2001 : 3 PhD thesis and 1 DEA, in 2002 : 1 PhD thesis, in 2003 : 1 PhD thesis, in 2004 : 1 PhD thesis, in 2005 : 2 PhD thesis, in 2006 : 3 PhD thesis and in 2012 : 2 PhD thesis & 2 MSc

### Recent Award

Dedicated to the 70 birthday of Prof Marc J.M. Abadie  
High Performance Polymers  
Contents : October 2009, Volume 21, No. 5



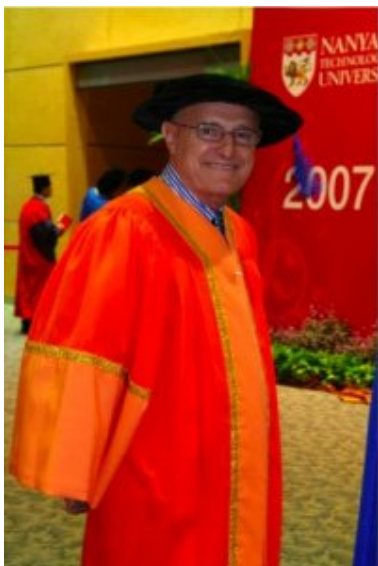
### Activities @ NTU

**1 - Research :** 3 PhD (Leonardus Kresna Widjaja, Ng Sing Shy, Han Dingzhi) 3 MSc (Ng Fen Ling, Seah Geok Leng, Lia Wijayanti Pratomo), 35 FYP, 11 publications in 2010

**2 - Domains of Expertise :** Biodegradable Thermoplastic Elastomers, UV Curing, High Temperature Polymers, Composites & Nano-composites, Inter -faces &-phases

**3 - Teaching : Undergraduate Sudents** - MS#2010 (Polymers & Composites), MS# 4523 (Polymer Synthesis), MS#4524 (Polymer Physics), MS# 4554 (Polymer Science), and **Graduate Students** - MS#7020 (Advanced Chemistry in Polymer Science), MS# 7053 (Composites & nano-composites : Status & Performance) and since 2014 MS#7026.

**We Love Abadie!! is on Facebook** Sign up for Facebook to connect with We Love Abadie!!



#### Information

Category:

Student Groups - Community Groups

Description:

Yes, this delectable professor in NTU deserves to have his own facebook group. We are students who love his mannerism and absolutely delightful choice of words. Never choosing to shy away from being political incorrect, Prof Abadie always strives (purposely or not, we still dun know) to inject that little bit of fun into his lectures. We love his announcements before lecture, his revealing of ppl who email him, his "toto! dun slp!", his "do you have any qns for my dad" slide, and all the random sentences that pop up now and again during lecture.

Share with us your Abadie moments and phrases here!

#### International Symposium 2010 - 2016 :

- MOLMAT 2010 Conference, July 5-8, 2010, Montpellier, France (1 poster)
- 9<sup>th</sup> MACRO2010 – 43<sup>rd</sup> IUPAC World Polymer Congress, July 11-16, 2010, Glasgow (2 oral presentations & 2 posters)
- 1<sup>st</sup>, 2<sup>nd</sup> & 3<sup>rd</sup> International Conference on Science & Engineering, Yangon, Myanmar, - December, 2009, 2010, 2011 & 2013 (Invited Speaker, 2 conferences)
- STEPI 9 – Montpellier 3-5 June, 2013
- STEPI 10 – Montpellier 5-8 June, 2016
- 1<sup>st</sup>, 2<sup>nd</sup>, 3<sup>th</sup> and 4<sup>th</sup> International Caucasian Symposium on Polymers & Advanced Materials (Invited Speaker, 2 conferences, 2 posters), 2008, 2011, 2013, 2015
- “Polycondensation 2014” Japan @ Tokyo Tech, 8-11 Sept 2014 (Invited Speaker)

#### Recent Publications (2012 - 2014)

- Synthesis, characterization and photopolymerization of vinyl ether and acrylate functionalized hybrid oligo-caprolactone - S. S. Liow, V. T. Lipik, L. K. Widjaja and M. J. M. Abadie, Journal of Polymer Research, Volume 19, Number 1, 9748, 2012
- Comparative Studies of Thermal and UV-curable Glass Fibre Reinforced Composites Based on New Epoxy Matrix, *In Memorium of Prof A.L. Rusanov* - Vanda Yu Voytekunas, Feng Lin Ng, Wern Sze Teo and Marc J.M. Abadie, Unique Properties of Polymers and Composites: Pure and Applied Science Today and Tomorrow (Volume 1), Nova Publishers, Editors: Yurii N. Bubnov, Valerii A. Vasnev, Andrei A. Askadskii and Gennady E. Zaikov (Russian Academy of Sciences, Moscow) – pp. 91-112 (2012)

- Controlling transesterification in ring opening polymerization of cyclic esters by  $\alpha$ -methylstyrene - Vitali Lipik and Marc Abadie, International Journal of Biomaterials, Accepted for publication (2012)
- Development of a UV-cured Hybrid Composite – G.L. Seah, Z. Seghier 1 M.J.M. Abadie, Asia Pacific Coatings Journal, June/July 18-19 (2012)
- Biodegradable elastomers based on ABA triblocks: influence of end-block crystallinity on elastomeric character - Jen Fong Kong, Vitali Lipik, Marc J.M. Abadie, Gulam Roshan Deen and Subbu S. Venkatraman, Polymer International, 61: 43–50. (2012)
- . Synthesis of Block Copolymers of Varying Architecture Through Suppression of Transesterification during Coordinated Anionic Ring Opening Polymerization - Vitali T. Lipik, Marc J.M. Abadie, International Journal of Biomaterials, 8 July .Vol. 2012. 11 pages.
- Auto-Reparation of Polyimide Film Coatings for Aerospace Applications / Challenges & Perspectives - A.A. Périchaud, R.M. Iskakov, Andrey Kurbatov, T. Z. Akhmetov, O.Y. Prokohdko, Irina V. Razumovskaya, Sergey L. Bazhenov, P.Y. Apel, V. Yu. Voytekunas & M.J.M. Abadie, in the book "High Performance Polymers - Polyimides Based - From Chemistry to Applications" edited by Marc J.M. Abadie, ISBN 978-953-51-0899-3, InTech, December 12, 2013 – Chapter 11, pp 215-244

#### Research Activities @ ICGM

- 1) *Polybenzimidazole : New Concept of ABPBI Systems for PEMFCs*
- 2) *Hybrid Metal Laminates for Aircraft Structures*
- 3) *Chemistry of Interfaces/Interphases for Composites and NanoComposites*

#### Recent Books

- "High Performance Polymers - Polyimides Based - From Chemistry to Applications" edited by Marc J.M. Abadie, ISBN 978-953-51-0899-3, InTech, (December 2013)
- "High-Performance Polymers for Engineering-Based Composites" - Omari Muckbaniani, Marc J.M. Abadie & Tamara Tatrishvili, Edited by CRC Press (August 2015)
- "Chemical Engineering of Polymers - Production of Functional and Flexible Materials"- Omari Muckbaniani, Marc J.M. Abadie & Tamara Tatrishvili, Edited by CRC Press (Forthcoming Sept 2016)

#### Papers submitted

- 1- Characterization and Mechanical Properties of Epoxy Resin Reinforced with TiO<sub>2</sub> Nanoparticles Laarej Merad & Marc J.M. Abadie, Submitted to *Experimental Techniques* (2016)
- 2- Development of Interpenetrating Network (IPN) Hybrid Composite for Thin Film Protection - G.L. Seah, V. Yu. Voytekunas & M.J.M. Abadie, Submitted to *eXPRESS Polymer Letters* (2016)

- 3- Ultra Fast Curing for Advanced Materials - V. Yu. Voytekunas & M.J.M. Abadie Submitted to *Polymer Engineering & Science*. (2015)
- 4- IR Curing – An Alternative of Convection for Advanced Materials in Aerospace Industry - V. Yu. Voytekunas & M.J.M. Abadie, Submitted to *Materials* (2015)
- 5- Synthesis and ionic conductivity of siloxane based polymer electrolytes with pendant propyl acetoacetate pendant groups - Omar Mukbaniani, Jimsher Aneli, Tamar Tatrishvili, Eliza Markarashvili, Maia Chigvinadze, M.J.M. Abadie submitted to *European Polymer Journal* (2015)

#### At a glance :

**Professor Marc J.M. ABADIE** is currently Professor Emeritus at the University Montpellier. He was full professor at the University Montpellier and head of Laboratory of Polymer Science and Advanced Organic Materials – LEMP/MAO. He is “Michael Fam” Visiting Professor at the School of Materials Science and Engineering, Nanyang Technological University, Singapore.

Born in 1938, chemical engineer (1961) from Louis Pasteur University (Strasbourg – France), he successively got his BSc (1959), MSc (1960), PhD Dr 3eme cyle (1963) and Doctorat es Physical Sciences (1972) in “Centre de Recherche sur les Macromolécules – Institut Charles Sadron” in Strasbourg with Professor Henri Benoit as President.

In the 80's he creates the International Symposium on Polyimides & High Temperature Polymers a.k.a. STEPI – STEPI 10 in June 2016. He also creates with Prof O. Mukbaniani the International Caucasian Symposium on Polymers & Advanced Materials a.k.a. ICSP&AM – ICSP&AM 4 will be in June 2015 in Batumi (Georgia). His present activities concern high performance composites and nanocomposites, UV & EB coatings, biomaterials and green chemistry. He has published 12 books and 12 patents. He has advised nearly 95 MS and 52 PhD students with whom he has published over 412 papers. More than 40 years experience in Polymer Science with 10 years in the industry (IBM USA, MOD UK, SNPA/Total France).



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#### Marc J.M. Abadie

Professor Emeritus, Dr “*honoris causa*”

#### 10<sup>th</sup> International Symposium on Polyimides and High Performance Polymers - STEPI 10

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