

Guillaume PETITPAS

CEP – Ecole des Mines de Paris

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Research Engineer

PhD Student

EDUCATION

2005-present

PhD student in Processes Engineering, Ecole des Mines de Paris, France

Research engineer at CEP, Sophia Antipolis, France

Doctorate expected in 2008, October

“Plasma assisted hydrocarbons reforming for fuel cells applications”

Advisors: Dr. Laurent FULCHERI, Dr. Rudolf METKEMEIJER

Core subjects: chemical engineering, non-thermal plasma, fuel cells system

Partnership with RENAULT SAS. Sponsored by ADEME.

2002-2005

Student at Ecole Nationale de Mécanique et d'Aéronautique, Poitiers, France

Winter and Spring 2005: Graduate Exchange Student at University of Washington, USA

ENSMA Engineering Degree - Master's Degree, PEGASUS Honors

Licence and Maîtrise de Mécanique, equivalent to a **Bachelor's** and the first year of a

Master's degree in mechanics, delivered by the University of Poitiers

Spring 2005

Master thesis at *University of Washington* (Seattle, USA): "Process of heptane condensation on a flat plate in micro gravity", under the framework of a NASA project.

Patankar's algorithm, thermodynamics computation.

Summer 2004

Four months internship at *Queen's University* (Belfast, UK): "Study of a pressure relief door in ventilated compartments" (collaboration with Bombardier)

Experimental investigation, Schlieren method set up, probe design.

French

Native language

English

Good command:

TOEIC: 940 (2007), TOEFL: 240 (2004).

German

Conversational

Spanish

Beginner

PUBLICATIONS & COMMUNICATIONS

G. Petitpas, J. Gonzalez-Aguilar, A. Darmon, R. Metkemeijer, L. Fulcheri, "Non thermal plasma assisted reforming out of hydrocarbons: On board application for hydrogen production", Proceedings of 11th congress of Société Française du Génie des Procédés, Saint Etienne – France, 9-11 October 2007

G. Petitpas, J.-D. Rollier, A. Darmon, J. Gonzalez-Aguilar, R. Metkemeijer, L. Fulcheri, "Review: A comparative study on non-thermal plasma assisted reforming", *Int J Hydrogen Energy* Volume 32, Issue 14, September 2007

G. Petitpas, J. Gonzalez-Aguilar, A. Darmon, R. Metkemeijer, L. Fulcheri, "Characterization of a low current high voltage air arc discharge at high pressure" & "Non – equilibrium plasma assisted hydrogen production: State-of-the-art", Proceedings of XVIIIth ICPIG (International Conference on Phenomena in Ionized Gases), Prague – Czech Republic, 15 - 20 July 2007.

G. Petitpas, J. Gonzalez-Aguilar, L. Fulcheri, "Caractérisation électrique d'une torche plasma à arc non-thermique fonctionnant à l'air", Proceedings of CAE (Congrès Arc Electrique) 8, Rouen - France, 12-13 March 2007

TEACHING & REVIEWING ACTIVITIES

Supervision of one week's programs of Master students of Ecole des Mines de Paris,
(October 2005 – TPES, February 2006 – TP Athens, October 2006- TPES, October 2007 - TPES)

Co-supervision of a three month internship (May-July 2007) on the "Kinetic modeling of isooctane reforming, assisted by non-thermal plasma".

2007: Reviewer for International Journal of Hydrogen Energy

COMPUTER SKILLS

Programmin languages	C, Ada 95 and Fortran (90 and others)
Software	Matlab/Simulink, web search engines, LabVIEW, VEE Pro 6.0, CATIA V5R9, SolidEdge V16, Gaseq, Fluent 6.2.16, CHEMKIN 2.0, T&Twinner

PERSONAL

Good health, enjoy travelling, playing basket ball and other outdoor activities. Musician (drums, guitare), First Aid qualified (A.F.P.S.)

Willing to travel and relocate