

David Delafosse

Eng. : *Ingénieur Civil des Mines (Nancy 88)*
MSc. : *Master of Science of the University of Strathclyde*
PhD : *Docteur de l'Ecole Centrale Paris*
HDR (*French habilitation to supervise PhDs*)

Professeur de classe exceptionnelle de l'Institut Mines-Télécom
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Born : May 19th 1967 in Grenoble (France)
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Training & degrees

- 2001 : **Diplôme d'Habilitation à Diriger des Recherches** (*habilitation to supervise PhDs*) of Institut National Polytechnique de Grenoble in Materials Science and Engineering
« Corrosion- Deformation Interactions : mechanistic studies, numerical simulations and materials selection »
- 1995 : **PhD in Mechanics and Materials of Ecole Centrale de Paris**
« Thermomechanical coupling and dynamic strain ageing in ductile fracture »
Recherche carried out at Laboratoire d'Etude des Microstructures (UMR CNRS – ONERA) supervised by Dr. L. P. Kubin.
- 1991 : **Master of Science in Mechanical Engineering** Strathclyde University, Glasgow, UK
« Assessment of elasto-plastic crack-tip fields by moiré interferometry »
MSc thesis supervised by Pr. C. A. Walker
- 1990 : **Ingénieur Civil des Mines** (*joint Master degree in engineering and management*)
Ecole des Mines de Nancy, France

Career

- April 2014 **Professeur de Classe Exceptionnelle** of Institut Mines-Telecom
March 2009 **Professeur de 1^{er} Catégorie** (*full professor*) des Ecoles des Mines
Dec. 2003 **Professeur de 2^{er} Catégorie** (*assitant professor*) des Ecoles des Mines
Dec. 1995 **Maître-Assistant** (*lecturer*) des Ecoles des Mines

Management

- 08.2015-- **Senior vice president, Dean for research and Innovation of Ecole des Mines de Saint-Etienne**
1700 graduate students in engineering science, 48 M€ total budget, 7 M€ contracts, 123 permanent faculty, 3 hosted ERC grants, 2 industry chairs
- 11.201-- **Visiting Professor - Department CMIC « Giulio Natta » of Politecnico di Milano** Teaching in the « Design and Engineering » MSc of the School of Design, co-supervision of cotutelle and double degree PhDs (2), co-supervision of MSc thesis (5)
- 2011-2015 **Head of the Science of Materials and Structures department of EMSE** : 93 people (23 faculty) – Yearly : 4,5 M€ total budget, 1,2 M€ contracts, 55 peer review articles, 12 PhDs. Specialised teaching in mechanics and materials engineering. Multidiscipline teaching in technology for design and innovation.
- 2008-2015 **In charge of the transverse program « Design and industrial creation » of EMSE** : teaching and research program in design and design-led innovation for manufacturing industries.
- 2011-2014 **Animator of the axis « White Light Processing and Perception Engineering »** of the Excellence Laboratory Manutech-SISE of Université de Lyon. Coordination of research projects and 5 years scientific strategy.
- 2008-2012 **Deputy Head of the mixed Unit CNRS-EMSE 5146 « Laboratoire Claude Goux ».**

PhD thesis currently supervised :

- Quentin Cridling New materials with particular visual rendering for applications in industrial design (*cotutelle Politecnico Milan – Doctoral school scienza e tecnologia dei materiali*)
- Esther Lefebvre Functional materials for Experience Design (*Double PhD – Design and Materials science – cotutelle Politecnico Milan – Doctoral school of Design*)
- Jessica Dacleu-Ndengue Visual and Tactile Sensations and Perceptions of textured surfaces (*PhD of the excellence laboratory Manutech-SISE of Université de Lyon, collaboration with university La Sapienza, Roma*)
- Diego Leyser de Souza Fatigue-corrosion of high-strength steels in pseudo-passivating marine environments in the presence of CO₂ and H₂S (*Industry-funded PhD with Institut de la Corrosion*)

19 (co-)supervised PhD thesis defended since 1999

International scientific comitees

- 2017 : CNRS Summer School « Mécanismes et Mécanique des Interactions Plasticité – Environnement »
- 2012 : Conference « Hydrogen Effects on Materials », Moran WY, USA
- 2008 : Conference « Hydrogen Effects on Materials », Moran WY, USA
- 2007 : CNRS Summer school « Mécanismes et Mécanique des Interactions Plasticité – Environnement »
- 2007 : 3rd Int. Conf. on Environmental Degradation of Materials – EDEM 2007, Gdansk, Pologne
- 2004 : Eurocorr Conference 2004, 12 - 16 Septembre Nice, France
- 2003 : 2nd Int. Conf. on Environmental Degradation of Materials - EDEM' 2003, 29 juin - 3 juillet 2003, Bordeaux, France.
- 2003 : 5th Euromech Solid Mechanics Conference - ESMC 5, 17 - 22 aout 2003, Thessalonique, Grèce.

Scientific Production (1st Feb. 2016)

Scopus Author ID 6603878835

2 book chapters, 2 thesis, 3 review papers, 31 original research papers, 7 keynotes and invited conferences, including one Gordon Research Conference on Hydrogen-Metal Systems (Barga, Italy 2009)

3 most cited papers :

- Delafosse, D, and T Magnin. 2001. "Hydrogen Induced Plasticity in Stress Corrosion Cracking of Engineering Systems." *Engineering Fracture Mechanics* 68 (6): 693–72
- Chateau, J P, D Delafosse, and T Magnin. 2002. "Numerical Simulations of Hydrogen – Dislocation Interactions in Fcc Stainless Steels . Part I : Hydrogen – Dislocation Interactions in Bulk Crystals." *Acta Materialia* 50: 1507–22.
- Fournier, L, D Delafosse, and T Magnin. 2001. "Oxidation Induced Intergranular Cracking and Portevin – Le Chatelier Effect in Nickel Base Superalloy 718." *Materials Science and Engineering A* 316: 166–73

3 most recent papers :

- Passaro, C., J.S. Bidoret, S. Baron, D. Delafosse, and O. Eterradosi. 2016. "Gloss Evaluation and Prediction of Achromatic Low-Gloss Textured Surfaces from the Automotive Industry." *Color Research & Application* 41 (2). John Wiley and Sons Inc.: 154–64. doi:10.1002/col.21946.
- Faucheu, Jenny, Natalia Matsapey, Renée Charrière, Manuel Flury, and David Delafosse. 2015. "Structural Colors of Nanoporous Anodic Alumina : Overview of Recent Advances and Case Study in Elaboration, Characterization, Photometry and Modelling." *Current Nanoscience* 11 (3): 317–325. doi:10.2174/1573413711666150212235823.
- Girardin, G., C. Huvier, D. Delafosse, and X. Feugas. 2015. "Correlation between Dislocation Organization and Slip Bands: TEM and AFM Investigations in Hydrogen-Containing Nickel and Nickel–chromium." *Acta Materialia* 91 (June): 141–51. doi:10.1016/j.actamat.2015.03.016.