

# CURRICULUM VITAE

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**Name** : Maria Vlachou  
**Year of Birth** : 1986  
**Nationality** : Greek  
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## 1. EDUCATION

- Oct. 2012 – June 2017 PhD Candidate: Department of Chemistry, Aristotle University of Thessaloniki in Greece  
*PhD Thesis: Highly efficient flow boiling macro-structured/macro-porous channels*
- Oct. 2010 – Dec. 2011 Postgraduate Studies: Environmental and Sanitary Engineering, Technical University of Crete in Greece (Degree: 9,19/10)  
*Master thesis: Chromium ( $Cr^{6+}$ ) and nickel ( $Ni^{2+}$ ) removal from aquatic solutions by electrocoagulation*
- Nov. 2009 – May 2012 Diploma in Economics: International Program, London School of Economics (Degree: Merit)
- Oct. 2004 – Nov. 2009 Graduate Studies: Chemical and Process Engineering, Aristotle University of Thessaloniki in Greece (General degree: 8,28/10)  
*Diploma thesis: Bioreduction of Cr(VI) to Cr(III) by the microorganism Arthrobacter sp.*
- Sept. 2001 – June 2004 11<sup>th</sup> Lycee of Thessaloniki (Degree 18,4/20)

### **Scholarships:**

- Graduate Studies: Scholarship for the academic year 2008-9, School of Chemical Engineering, Division of Chemistry, Aristotle University of Thessaloniki
- Postgraduate Studies: Scholarship for the academic year 2010-11, School of Environmental Engineering, Division of Toxic and Hazardous Waste Management, Technical University of Crete
- PhD studies: IKY Fellowships of excellence for postgraduate studies in Greece – SIEMENS program 2012-2016, School of Chemistry, Division of Chemical Technology, Aristotle University of Thessaloniki
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## 2. FOREIGN LANGUAGES

- English: Certificate of Proficiency – University of Michigan
- German: Zertifikat Neugnis – Goethe Institut
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### **3. SKILLS**

#### **A. COMPUTER**

Microsoft office, internet

Programming languages: Matlab, Fortran

Process simulation/ design programs: ASPEN plus, ISC3, Argus ONE, GIS,  
COMSOL Multiphysics, SolidWorks

#### **B. ATTENDANCE AT MEETINGS – CONGRESSES – TRAININGS**

4-7 May 2015	“From Innovation to Entrepreneurship...”, Training School of COST MP1106 Smart and Green Interfaces, Dissemination Centre, Aristotle University of Thessaloniki, Greece
16-18 July 2013	“Cultivating Entrepreneurial Ideas”, Training School of COST MP1106 Smart and Green Interfaces, Dissemination Centre, Aristotle University of Thessaloniki, Greece
23-25 Apr. 2013	“A way to Smart Europe”, Training School of COST MP1106 Smart and Green Interfaces, University of Twente, Enschede, The Netherlands
Feb.-Apr. 2013	Training program: Transferable/ Key Competences for Doctoral Candidates, Aristotle University of Thessaloniki, Greece
23-25 Apr. 2010	14 <sup>th</sup> Hellenic Medicinal Chemistry Symposium, Teloglion Foundation of Arts, Aristotle University of Thessaloniki, Greece
3-5 June 2009	7 <sup>th</sup> National Congress of Chemical Engineering, Conference and culture hall of University of Patras, Greece
29 Nov. 2008	Conference: The contribution of Green Chemistry to the protection of the environment – Biofuels, Hyatt Regency, Thessaloniki, Greece

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### **4. WORK EXPERIENCE**

July 2017 – Today	Post-doc researcher, Chemical and Environmental Technology lab, School of Chemistry, Aristotle University of Thessaloniki, Greece: <i>Research Funded Projects (ESA, ESPA etc.)</i>
June – July 2014	Organizing Committee of EUFOAM 2014, 10 <sup>th</sup> European Conference on Foams, Emulsions and Applications, Thessaloniki, Greece.
Sept. 2009 – Nov.2009	Experimental work in the Particles, Polymers and Biomaterials Technology lab of Chemical Engineering Department, University of Coimbra (CIEPQPF), Portugal. <i>Project: Preparation and characterization of pectin-chitosan composite scaffolds for bone tissue Engineering</i>
Aug.2009 – Sept.2009	Chemical analysis in the laboratory of the winery «Domaine Gerovassiliou», Epanomi, Greece.
June2008 – Aug.2008	Experimental work in the Colloidal Engineering lab of Chemical Engineering Department, Strathclyde University, Glasgow, Scotland. <i>Project: Engineering of sol-gel formation processes of nanoporous carbon aerogels</i>

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## **5. PUBLICATIONS**

### **A. JOURNALS**

1. M. Vlachou, J. Lioumbas, M. Kostoglou, K. David, D. Chasapis, C. Schwarz, J. van Loon, T. Karapantsios, "Subcooled flow boiling in horizontal and vertical macro-channel under Earth-gravity and hyper-gravity conditions", *International Journal of Heat and Mass Transfer*, submitted, 2018.
2. M. Vlachou, T. Karapantsios, "Effect of channel inclination on heat transfer and bubble dynamics during subcooled flow boiling", *International Journal of Thermal Sciences*, 124, 484-495 (2018).
3. M. Vlachou, J. Lioumbas, C. David, D. Chasapis, T. Karapantsios, "Effect of channel height and mass flux on highly subcooled horizontal flow boiling", *Experimental Thermal and Fluid Sciences*, 83, 157-168 (2017).
4. M. C. Vlachou, J. S. Lioumbas, T. D. Karapantsios, "Heat transfer enhancement in boiling over modified surfaces: A critical review", *Interfacial Phenomena and Heat Transfer*, 3 (4), 341-367 (2015).
5. M. Vlachou, J. Hahladakis, E. Gidarakos, "Effect of various parameters in removing Cr and Ni from model wastewater by using electrocoagulation", *GlobalNEST*, 15 (4), 494-503 (2013).

### **B. CONFERENCES**

1. M. C. Vlachou, J. S. Lioumbas, C. David, D. Chasapis, T. D. Karapantsios, "The effect of increased gravitational acceleration on flow boiling incipience" oral, *11<sup>th</sup> International Conference on Two-phase Systems for Ground and Space Applications*, Marseille, France, September 26-29 (2016).
2. M. C. Vlachou, J. S. Lioumbas, T. D. Karapantsios, "Flow boiling incipience in macro-channels: Working conditions that maximize heat removal" oral, *Smart and Green Interfaces Conference & COST MP1106 Annual meeting*, Athens, Greece, May 4-6 (2016).
3. M. C. Vlachou, J. S. Lioumbas, T. D. Karapantsios, "Highly subcooled flow boiling in macro-channels: Effect of channel's height and orientation" poster, *Smart and Green Interfaces Conference & COST MP1106 Annual meeting*, Athens, Greece, May 4-6 (2016).
4. M. C. Vlachou, J. S. Lioumbas, C. David, T. D. Karapantsios, "Subcooled flow boiling in a rectangular macro-channel at high mass flow rates: Performance of horizontal and vertical orientation", poster & short oral, *International Symposium and School for Young Scientists Interfacial Phenomena and Heat Transfer*, Novosibirsk, Russia, March 2-4 (2016).

*Award: "Best poster" of the session "Flow boiling, shear-driven films: CHF, nano and microstructured surfaces, wave structure, dry spots".*

5. M. C. Vlachou, J. S. Lioumbas, C. N. David, D. Chasapis, T. D. Karapantsios, "Heat transfer characteristics during subcooled flow boiling: Influence of inclination angle" oral, *6<sup>th</sup> International Conference on Bubble and Drop interfaces*, Potsdam-Golm, Germany, July 6-10 (2015).
  6. M. C. Vlachou, J. S. Lioumbas, T. D. Karapantsios, "Flow boiling heat transfer as means of cooling in a rectangular macrochannel" oral, *Smart and Green Interfaces Conference & COST MP1106 Annual meeting*, Belgrade, Serbia, March 30 – April 1 (2015).
  7. M. Vlachou, J. Lioumbas, T. Karapantsios, "Device for the study of highly efficient flow boiling heat transfer in a macro-channel" poster, *5<sup>th</sup> International Conference on Heat Transfer and Fluid Flow in Microscale*, Marseille, France, April 22-24 (2014).
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