


DEPARTMENT OF ENVIRONMENTAL ENGINEERING – UNIVERSITY OF WESTERN MACEDONIA

Name and Surname:	Marnellos George	
Specialization/Position:	Chemical Engineering /Faculty Member (Prof. Department of Mechanical Engineering)	
Brief CV:	<p>George Marnellos is a Prof. of the Department of Mechanical Engineering at UoWM. He graduated the Dept. of Chemical Engineering at Aristotle University of Thessaloniki (AUTH) in 1995. He obtained his Ph.D. in 1999 from the AUTH, and a Master degree in Business Administration from the Macedonia University in 1998. He is also an affiliated faculty member in the CPERI/CERTH research institute. In September 2016, he was appointed as the Vice Rector for Financial Planning, Infrastructure & Development of UoWM. His research interests are focusing on fields related to hydrocarbons processing (natural gas valorisation, production of olefins), hydrogen (iso-octane and bioethanol reforming, steam and H₂S electrolysis, electrochemical membrane reactors for hydrogen generation and separation) and fuel cell (direct hydrocarbon and solid carbon high temperature ceramic fuel cells) technologies, air pollution control (NO_x, VOCs, etc) and biomass to energy conversion technologies. He is the co-author of 71 papers in international scientific journals and more than 100 contributions in international and national conference proceedings, and 2 book chapters, concerning heterogeneous catalysis, solid state electrochemistry and biomass-to-energy science and engineering. Prof. Marnellos published work has been worldwide acknowledged with more than 1000 citations (H= 17). He is a regular reviewer in relevant scientific Journals and research funding agencies and he is/was a member in the organizing and scientific committees of international and national scientific conferences. In 2010, he obtained the Fulbright research scholarship to cooperate with MIT in the research field of fuel cells. In November 2015, he was awarded by UoWM a prize for Innovative Research in 2012-2014.</p>	
Publications 2013-2018 (up to 5)	<ol style="list-style-type: none"> 1. "Electrochemical conversion of CO₂ over microchanneled cathode supports of solid oxide electrolysis cells", L. Yu, J. Wang, Z. Ye, X. Hu, C. Buckley, <u>G. Marnellos</u>, D. Dong. <i>J. CO₂ Utilization</i>, 26, 179 (2018). 2. "A protonic ceramic membrane reactor for the production of hydrogen from coal steam gasification", V. Kyriakou, I. Garagounis, A. Vourros, <u>G.E. Marnellos</u>, M. Stoukides. <i>J. Membr. Sci.</i>, 553, 163 (2018). 3. "Remediation of Black Sea ecosystem and pure H₂ generation via H₂S-H₂O co-electrolysis in a proton-conducting membrane cell stack reactor: A feasibility study of the integrated and autonomous approach", D. Ipsakis, Tz. Kraia, M. Konsolakis, <u>G.E. Marnellos</u>. <i>Renewable Energy</i>, 125, 806 (2018). 4. "Highly Active and Stable TiO₂-Supported Au Nanoparticles for CO₂ Reduction", V. Kyriakou, A. Vourros, I. Garagounis, S.A.C. Carabineiro, F.J. Maldonado-Hódar, <u>G.E. Marnellos</u>, M. Konsolakis. <i>Catalysis Communications</i>, 98, 52 (2017). 5. "N₂O decomposition over ceria-promoted Ir/Al₂O₃ catalysts: The role of ceria", E. Pachatouridou, E. Papista, A. Delimitis, M.A. Vasiliades, A.M. Efstathiou, M.D. Amiridis, O.S. Alexeev, D. Bloom, <u>G.E. Marnellos</u>, M. Konsolakis and E. Iliopoulou. <i>Appl. Catal. B</i>, 187, 259 (2016). 	
Research Projects 2013-2018 (up to 5)	<ol style="list-style-type: none"> 1. "Efficient Conversion of Coal to Electricity - Direct Coal Fuel Cells", (DCFC) Research Fund for Coal and Steel (RFCS, EU). 2. "Hydrogen production from H₂S decomposition in micro-structured proton-conducting solid oxide membrane reactors" (BLACK SEA ERANET). 3. "Development of novel catalyst composites via the synergy of structure and surface promoters for the simultaneous abatement of Nitrogen (NO_x) and Nitrous (N₂O) oxides" (THALES). 4. "Direct Conversion of Biomass to Electricity in MED area via an Internal Catalytic Gasification Solid Oxide Fuel Cell" (ERANET MED). 5. "Efficient conversion of Greek Lignite and agricultural residues to electricity through catalyst-aided integrated gasification/SOFC and Direct Carbon Fuel Cell processes - LIGBIO-GASOFC" (RESEARCH – CREATE - INNOVATE). 	
Distinctions:	<ol style="list-style-type: none"> 1. Fulbright research scholar at Massachusetts Institute of Technology (MIT), 2011. 2. Innovative research award at UoWM (2015). 	