## DEPARTMENT OF ENVIRONMENTAL ENGINEERING – UNIVERSITY OF WESTERN MACEDONIA

Name and Surname:	Nikolaos Kaklidis
Specialization/Position:	Mechanical Engineer/Adjunct Faculty (Department of Environmental Engineering, UOWM)
Brief CV:	Dr. Kaklidis graduated the Dept. of Mechanical Engineering at University of Thessaly in
	2005. He obtained his Ph.D. in 2011 from the University of Western Macedonia. He is the co-author of 20 papers in international scientific journals, 25 in international conference proceedings and 30 in national conference proceedings (>190 citations, h=8). He is member of the research group of Sustainable Technologies on Alternative & Renewable FUELS (STAR FUELS). STAR FUELS' mission is to stimulate and conduct high-level fundamental/applied research in the fields of hydrocarbons processing (natural gas valorisation, production of olefins), hydrogen (iso-octane and bioethanol reforming, steam and H <sub>2</sub> S electrolysis, electrochemical membrane reactors for hydrogen generation and separation) and fuel cell (direct hydrocarbon and solid carbon high temperature coramis fuel cells) technologies air pollution control (NOr, NOCs, etc) and biometers to
	ceramic fuel cells) technologies, air pollution control (NO <sub>x</sub> , VOCs, etc) and biomass to
Publications	energy conversion technologies. 1. "The combined impact of carbon type and catalyst-aided gasification process on the
2013-2018	performance of a Direct Carbon Solid Oxide Fuel Cell", M. Konsolakis, <u>N. Kaklidis</u> , V.
(up to 5)	Kyriakou, I. Garagounis, T. Kraia, A. Arenillas, J.A. Menéndez, R. Strandbakke, G.E.
	Marnellos. Solid State Ionics, <u>317</u> , 268-275 (2018).
	2. "Iso-octane internal reforming in a solid oxide cell reactor", A. Al-Musa, <u>N. Kaklidis</u> , M.
	Al-Saleh, A. Al-Zahrani, V. Kyriakou, G.E. Marnellos. <i>Solid State Ionics</i> , <b><u>288</u></b> , 135-139
	(2016). 3. "Assessment of biochar as feedstock in a direct carbon solid oxide fuel cell", M.
	Konsolakis, <u>N. Kaklidis</u> , G.E. Marnellos, D. Zaharaki, K. Komnitsas. <i>Royal Society of</i>
	Chemistry Advances, <u>5</u> , 73399-73409 (2015).
	4. "Direct utilization of Lignite coal in a Co-CeO2/YSZ/Ag solid oxide fuel cell", N. Kaklidis,
	I. Garagounis, V. Kyriakou, V. Besikiotis, A. Arenillas, J.A. Menéndez, G.E. Marnellos, M.
	Konsolakis. International Journal of Hydrogen Energy, <u>40</u> , 14353-13363 (2015).
	5. "Insights into the role of SO <sub>2</sub> and H <sub>2</sub> O on the surface characteristics and de-N <sub>2</sub> O efficiency of Pd/Al <sub>2</sub> O <sub>3</sub> catalysts during N <sub>2</sub> O decomposition in the presence of CH <sub>4</sub> and
	O <sub>2</sub> excess", M. Konsolakis, I.V. Yentekakis, G. Pekridis, <u>N. Kaklidis</u> , A.C. Psarras, G.E.
	Marnellos. Applied Catalysis B: Environmental, <u>138-139</u> , 191-198 (2013).
Research Projects	1. "Efficient conversion of coal to electricity-direct coal fuel cells – DCFC" (EE (FP7),
2013-2018	Research Fund for Coal and Stee (RFC-PR-10007)).
(up to 5)	2. "Construction of a Prototype Apparatus for the Production of Hydrogen and Power in
	Direct Hydrocarbon Solid Oxide Fuel Cell-Reactors" (KACST (King Abdulaziz City of
	Science and Technology).
	3. "Development and application of novel bi-metallic anodic electrodes in direct hydrocarbon fuel cells (SOFC)" (Greek Ministry of Development).
	<ol> <li>"A combined process of biomass pyrolysis and SOFC for the simultaneous production</li> </ol>
	of gas/liquid biofuels and energy" (Greek Ministry of Development).
	5. "Development of a combined anaerobic digestion-SOFC pilot plant" (West Macedonia
	Region).
Distinctions:	1. Postdoctoral scholarship from the State Scholarships Foundation (IKY).
	2. Ph.D. Scholarship from the Chemical Process Engineering Research Institute (CPERI) of
	the Centre of Research and Technology Hellas (CERTH), Greece.