T-1: A Tribute to Jose González-García. A Life Dedicated to research.

José González-García, Verónica Sáez, Ángel Frías-Ferrer, María Deseada Esclapez, Ignacio Tudela, María Isabel Díez-García and Pedro Bonete*

Grupo de Nuevos Desarrollos Tecnológicos en Electroquímica: Sonoelectroquímica y Bioelectroquímica. Departamento de Química Física e Instituto Universitario de Electroquímica. Universidad de Alicante. Ap. 11 Correos 99, 03080 Alicante, Spain. pedro.bonete@ua.es

José González-García (1967-2012). In 1985 he started to study Chemistry at the University of Alicante. Since completing his PhD in 1994, José González-García developed a very strong academic career with key achievements in terms of scientific outcomes, applied research, educational development and funding applications in the field of sonochemistry, chemical engineering, material and environmental sciences. Since 2005 he was leading the research Group New Technological Developments in Electrochemistry: Bioelectrochemistry and Sonoelectrochemistry which is currently comprised of 5 team members including staff and PhD students.

Since he become the leader of the group he initiated and developed a strong applied research group in Sonoelectrochemistry In fact, it could be said that Group New Technological developments in Electrochemistry: Bioelectrochemistry and Sonoelectrochemistry is the unique group in Spain in this area with outcomes relevant for the European Community and he was leading one of the very few groups which are actively developing different approaches in Sonoelectrochemistry in Europe, apart from its application in electroanalysis, strongly developed by Compton Group in the University of Oxford. In particular, he introduced innovation design of sonoelectrochemical reactors looking at multipurpose prototypes to be used in different applications (Saez et al. 2005a and I. Tudela et al. 2011), innovative methodology in (i) the environmental remediation with sonoelectrochemical approaches which allow the treatment of low conductivity effluents with Electrochemistry without the addition of extra salts to increase the conductivity (Saez et al. 2011) and (ii) sensors of the characterization of ultrasound fields (Saez et al. 2005b) and innovating concepts in Sonoelectrochemistry as the "sonopotential concept" (Marchante et al. 2009). During his research activity he initiated and participated in many applied research projects with significant outcomes in terms of economic and societal impacts. He had also successfully filed 3 nationals and 2 Internationals patents, importantly the last two were transferred (sold) to the Industry.

References

Sáez, V.; Frías-Ferrer, A.; Iniesta, J.; González-García, J.; Aldaz, A.; Riera, E., 2005a, Characterization of a 20 kHz sonoreactor: Part I: Analysis of mechanical effects by classical and numerical methods, Ultrason. Sonochem. 12, 59-65.

Sáez, V.; Frías-Ferrer, A.; Iniesta, J.; González-García, J.; Aldaz, A.; Riera, E., 2005b, Characterization of a 20 kHz sonoreactor: Part II: Analysis of chemical effects by classical and electrochemical methods, Ultrason. Sonochem. 12, 67-72.

Marchante, E.; Lana-Villarreal, T.; Sáez, V.; González-García, J.; Gómez, R., 2010, Sonopotential: A new concept in electrochemistry, Chem. Commun. 27, 4127-29.

Sáez, V. ; Tudela, I.; Esclapez, M.D.; Bonete, P.; Louisnard, O.; González-García, J., 2011, Sonoelectrochemical degradation of perchloroethylene in water: enhancemente of the process by the abscence of background electrolyte, Chem. Eng. J. 168, 649-655.

Tudela, I.; Sáez, V.; Esclapez, M. D.; Bonete, P.; Harzali H.; Baillon, F.; González-García, J.; Louisnard, O., 2011, Study of the influence of transducer-electrode and electrode-wall gaps on the acoustic field inside a sonoelectrochemical reactor by FEM simulations, Chem. Eng. J. 171, 81-91.