

Juan Antonio AGUILAR-GARIB

Juan Antonio AGUILAR-GARIB is a Full Time Professor at the Facultad de Ingeniería Mecánica y Eléctrica (FIME, School of Mechanical and Electrical Engineering) of the Universidad Autónoma de Nuevo León (UANL) in the Graduate Program in Materials Engineering. He is a Mechanical Engineer and Science Master in Metallurgy graduated of the Instituto Tecnológico de Saltillo in México, and earned a doctoral degree in Materials Engineering by the Universidad Autónoma de Nuevo León (1991).

In 1994, founded by CONACYT (Mexican Council for Science and Technology) and UANL, started his research about microwave processing of materials, mostly ceramics. Therefore, Dr. AGUILAR-GARIB spent a year in 1997 in the Center for Energy Studies, later the Center for Energy and Environmental Resources at The University of Texas at Austin, in a laboratory called "Process Energetics".

In 2005 graduated a doctor under a cotutelle agreement (the first one at FIME) through a research collaboration of the UANL (with ANUIES) and the Université Paul Sabatier (with ECOS, France) entitled "Sintering of nickel manganese compounds by means of microwaves". This collaboration continued with the support of PCP (Program for Graduate Cooperation) with the same universities and two companies, Kemet de Mexico and Marion Technologies, from France, and a second doctor was graduated under the same agreement with the work "Thickness reduction of ceramic layers based on BaTiO₃ for capacitors", and in 2014 a new proposal about conductive phases in ceramics was granted.

Dr. AGUILAR-GARIB has been honored by academia and research. He is a member of the Sistema Nacional de Investigadores (Mexican System for Researching); of the Academic Group "Science and Engineering of Nanomaterials" since 2015, after being member of the group "Synthesis and Characterization of Materials" since 2003 (PROMEP) at FIME, member de la UANL; and of the Mexican Academy of Sciences. He has participated in 2009 and 2011 in the Chair of Mexican Studies at the Université de Toulouse, Le Mirail. He earned the Research Award UANL in 1991 for the work "Development of a topochemical model of reduction of iron ore". As part of a team he earned the same award in 2001 for the work "Effect of iron over the sintering, order parameter and morphology of a spinel of the system Al₂O₃-MgO-Fe₂O₃"; in 2003 (granted in 2004) for the work "Synthesis of MgAl₂O₄ at low temperatures with additions of CaCO₃"; and in 2012 for the work "Design of slips for producing ultrathin ceramic tapes for capacitors by tape casting". In 2000 he earned with a team, the TECNOS Award of Technology for the work "Iron oxide layer formation over the walls of direct reduction ore reactors".

Dr. AGUILAR-GARIB is the Head Editor of Revista *Ingenierías* of FIME and the Editor in Chief of the Journal of Microwave Power and Electromagnetic Energy.

The interest areas of Dr. AGUILAR-GARIB consider application of technology for optimization of processes, decision making supported by scientific foundations, considering energetic and environmental aspects, with novel technologies for supplying energy to the processes and development of know-how, based on scientific aspects, applied to materials processing.

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