



María Azucena González Lozano

Position: Academic researcher

Phone 52 (618) 1301120

Email: magl62001@yahoo.com.mx, magl62001@hotmail.com

Education:

PhD: Metallurgic and ceramic engineering, Center for Research and Advanced Studies (CINVESTAV-IPN).

Master Degree: Ceramic engineering, Center for Research and Advanced Studies (CINVESTAV-IPN).

Bachelors Degree: Materials Science Engineering, Universidad Juárez del Estado de Durango, 15 Junio de 2002

Professional Experience:

Academic researcher at Juarez University of Durango State from 08/11/2008.

Research lines:

- Synthesis and characterization of glass and glass-ceramic materials. The objective of this line is to obtain ferroelectric materials based on different titanates presenting good mechanical properties.
- Synthesis, characterization and application of $K_2Ti_6O_{13}$ fibers. Aims to get fibers and use them as strengthening of ceramics, metals and polymers, for different applications. Likewise, evaluate the fibers as potential catalytic agents in the degradation of compounds and for the generation of hydrogen.
- Manufacture of bricks for construction partially replaced with waste materials. The objective is to obtain building materials using cullet, with physical and mechanical properties according to Mexican standards, and which cause less environmental impact than currently produced bricks.
- Synthesis, characterization and evaluation of polymeric films with inorganic additives, with application in packaging food, greenhouses, etc. The goal is to produce polymer films with different applications in the productive sector.

Selected Publications:

- María A. González-Lozano, Alexander Gorokhovsky, José I. Escalante-García, Vitrification and crystallization in the system of $K_2O-B_2O_3-TiO_2$, *Journal of Non-Crystalline Solids*, 355 (2009) 114–119.
- María Azucena González Lozano, Alexander Gorokhovsky, José Iván Escalante García, Patricia Ponce Peña, Miguel Ángel Escobedo Bretado, Edgar López Chipres and Virgilio Mojica Marín, Glass-forming tendency in the $K_2O-BaO-B_2O_3-Al_2O_3-TiO_2$ system, *International Journal of the Physical Sciences* Vol. 6:36 (2011), pp. 8164 – 8170.
- René H. Lara, Marcos G. Monroy, Martine Mallet, Manuel Dossot, Ma Azucena González, Roel Cruz, An experimental study of iron sulfides weathering under simulated calcareous soil conditions, *Environmental Earth Sciences*, 73: 4 (2015), pp 1849-1869.
- Patricia Ponce-Peña, Edgar López-Chipres, Edgar García-Sánchez, Miguel Angel Escobedo-Bretado, Brenda Xiomara Ochoa-Salazar, and María Azucena González-Lozano, Optimized Design of an ECAP Die Using the Finite Element Method for Obtaining Nanostructured Materials, *Advances in Materials Science and Engineering*, Volume 2015, Article ID 702548, 8 pages.
- P. Ponce-Peña, M.A.González-Lozano, M.A.Escobedo-Bretado, P. deLira-Gómez, E. García-



Sánchez, E.Rivera, L.Alexandrova, Synthesis and characterization of potassium hexatitanate using boric acid as the flux, *Ceramics International* 41 (2015), pp 10051–10056.

Directed Thesis:

12 of Bachelor's degree, 2 students of Bachelor's degree in process.