

Poster

The Africa Education Program for Training Kenyan High school Teachers on “Learning how Science works with crystals” and the First African Crystallization Contest in the School

J. Kiano¹, P. Gitari², M. Njogu Mbogua³, S. Derese³, F. Otolara⁴, J. M. García-Ruiz⁴

¹Nemayiana, AMST (Africa Museum of Science and Technology), ²EU CBRN (Chemical Biological Radiological and Nuclear) Risk Mitigation Project, East and Central Africa, ³Department of Chemistry, University of Nairobi, Nairobi Kenya, ⁴Instituto Andaluz de Ciencias de la Tierra. CSIC-Universidad de Granada. Granada. Spain

communicating author: juanmanuel.garcia@csic.es

The youth of the continent of Africa represent a large majority of the population. The UN predicts that the youth population in sub-Saharan Africa will have doubled by 2050. As the continent's biggest resource, the African youth, with a special emphasis on the marginalized girl child, needs to be provided with the tools for the advancement of science, technology, engineering, and mathematics (STEM) in the 21st century. We have piloted the Africa Education Program for Training Kenyan High School Teachers on “Learning how Science works with crystals” and the First African Crystallization Contest in the Schools. The program focuses on teacher development and student science education and communication. This program is adapted for the Kenyan and African socio-economic landscape, informing Kenyan High School Students on how science works and how scientists behave using the appealing of crystals and crystal growth as the core of the project. The pilot project began with a 3-day teacher training workshop at the end of November 2023, at the Faculty of Science and Technology of the University of Nairobi, Kenya. It is the first time the global Crystallisation Contest in schools has been held in Africa. Founded in 2009 by the Crystallographic Studies Laboratory of the Andalusian Institute of Geosciences (CSIC-UGR), the Crystallisation Contest expanded across Spain, Puerto Rico, Argentina, México, and now Kenya. To date, this education program has been very successful. For instance, more than 15,000 students participate yearly in Spain and hundreds of thousands also in Argentina, with the support of international institutions as the International Union of Crystallography, the European Crystallographic Association, the International Organization of Crystal Growth. This year, we have had the privilege of hosting 23 educators from 13 institutions of learning across Nairobi, Kiambu, and Mombasa. We estimate that, in this first African Contest of Crystallization in Schools, around 120 students will have learned to plan, present, and collaborate in scientific and technological information using crystallization projects..

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Figure 1. Participants in the Training Workshop for Kenyan High School Teachers, held in Nairobi from 29th Nov. to 1st Dec. 2023.