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# Microplastics in Table Salts: from university research to school activities

IRENE CANTARERO[1], **ELISABET PLAYÀ SR.**[2], VINYET BAQUÉS[1], MARÍA LERÍA[1], CRISTINA GAYA[1] AND ANNA TRAVÉ[1]

[1]Universitat de Barcelona

[2]Mineralogy, Petrology and Applied Geology Department, Earth Sciences Faculty, Universitat de Barcelona

Presenting Author: eplaya@ub.edu

Microplastic (MP) pollution is present in all environmental compartments (from sea to atmosphere and food chains), and so it is found in salts, the unique edible rocks. Table salts are cheap, easy to find and soluble in water and therefore the study of MP in table salts, a topic of social interest, can be addressed from Primary to Highschool.

The standard analytical procedure for studying MP in salts consists of dissolving and filtering samples with a vacuum system in a laminar flow cabinet, but institute and school labs do not have all the necessary material. Therefore, the protocol has been adapted to these labs and even to home experimentation, enabling the transference to any educational level or available resources. For instance, membrane filters can be substituted for the central tissue of surgical masks or coffee filters, the vacuum suction system for a water tube or a home vacuum aspirator and the kitasato-büchner funnel flask by a carafe with a tap and a funnel of an Italian coffee pot.

Three levels of diffusion strategies have been considered for this activity:

1. Design of visual guides and creation of a student workbook and a teacher guidebook. Visual guides take into account that images are a fundamental element to transmit knowledge. In this sense, a collaboration between Geology and Arts has been established to create figurative drawings with a high degree of iconicity. All materials are free and downloadable from several platforms (i.e. http://www.ub.edu/sedimentary-geology/microplastics-salt/).
2. Training for teachers and secondary school students. Lab protocols are explained to secondary school teachers in specific workshops, and 9 high school students have applied our adapted lab procedures to their Final Research Projects.
3. Presence in Science Festivals for general public such as *Festa de la Ciencia of the Universitat de Barcelona* (Science Party) and *Ciencia en Accion* (Science in Action).

Activity success lied in adapting experimentation to available resources, to all levels of knowledge, and providing teachers with guided and visual activities. Moreover, promoting low cost materials allows to include communities with few resources and work for the Sustainable Development Goal (SDO) 4 (Quality Education).