Comparison of the Natural and Anthropogenic Radioactive Isotopes in Aerosols Collected at T1 during the Milagro campaign

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Gamma measurements of fine particles (five less than 2.5 μm) collected in Teflon filters at the Technological University of Tecamac [Universidad Tecnológica de Tecamac (UTTEC)], in the State of Mexico (T1 site of the MILAGRO campaign), were analyzed at the Research Centre of Advanced Materials, S.C. [Centro de Investigación en Materiales Avanzados, S.C. (CIMAV)] in Chihuahua city. Results showed that contents of natural radioisotopes: ^{238}U, ^{232}Th, ^{40}K, or anthropogenic isotope ^{137}Cs from the T1 site, were negligible after comparing them with the Chihuahua city aerosols, collected approximately the same days of the MILAGRO campaign aerosols. These results made us think that the presence of the natural isotopes in air is generated by ground use or aeolic dragging only. The concentration values of the natural isotopes are relative high in Chihuahua due to the riolythic origin of sedimentary rocks, but in the case of the ^{137}Cs isotope, its presence in Chihuahua's aerosol is caused by the fallout phenomenon.