An experimental partial mapping of PM1 in correlation with Radon daughters in great periphery of Athens.

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A relative study of experimental model of radon daughters in expansion and the PM1 particles in our city's atmosphere is the object of this paper. This investigation consists of three thousands sporadic samples of PM1 collected from six vital points in high traffic peak roads, in and out of the city center. A continuous radon daughters active monitoring has been carried out, for more than six thousands hours in periphery of the city.(posted our Rn station).

In this research we have used an active Rn detector (a spectroscopy method) and a portable PM detector (light scattering method). As we know there have only been a few systematic studies of PM1 in our city. Is already know that they represent the main hazard in cardio respiratory syndromes in the most polluted cities of Europe, which confront high traffic problems, due to the enormous number of vehicles in circulation and the industrial development. Our results have been processed with maple 9,5 and minitab 12. In conclusion we wonder if the European organizations should set new safety standards for the PM1, as they have already done, for other PMs in order to have the correct prevention and promotion of public health rule in European countries.