



Environmental test chamber

Li Qian

China (liqian@rdfzcy.cn)

Abstract text: Increasing of particulates in the air in city became a serious problem , but in the Beijing area students rarely research such questions. The intelligent instrument of suspended particulate matter sampler which introduce from the institute of geology and geophysics, Chinese academy of sciences can be collected for all kinds of grain size of suspended matter in the air. We put them near schools, so the PM_{2.5} in the air near our school can be collected. The method for analysis is the environmental magnetism, etc. Numerous studies have demonstrated rapid and non-destructive magnetic parameters measurement for rapid estimation of particulate sources of heavy metals and provides a very effective means. Environmental magnetism is a frontier science among earth science, environmental science and magnetism, which has been applied into many fields because it is capable of providing important information for studying the regional or global environmental changes and the impact of human activity on environment. Testing magnetic parameters of the particle can extract atmospheric particulate matter source, distribution, pollution level and dynamic change information. Measured the magnetic parameters of ARM, IRM, hysteresis loop , element composition, soil particle size of the soil, leaf, the river and dustfall samples and PM_{2.5} of the atmospheric dustfall samples on campus and the Beijing city. By means of environmental magnetism analysis of atmospheric pollutants category, amount, etc. Magnetic properties of pollutants may indicate the source of the pollutants, the nature of the analysis of pollutants, monitoring pollutant change over time.