

## **Indoor Emissions Produced by Kerosene Heating, Determining Its Formation Potential of Secondary Particulate Matter and Transport**

**Authors :** J. M. Muñoz, Y. Vasquez, P. Oyola, M. Rubio

**Abstract :** All emissions of contaminants inside of homes, offices, school and another enclosure closer that affect the health of those who inhabit or use them are cataloged how indoor pollution. The importance of this study is because individuals spend most of their time in indoors ambient. The main indoor pollutants are oxides of nitrogen (NO<sub>x</sub>), sulfur dioxide (SO<sub>2</sub>), carbon monoxide (CO) and particulate matter (PM). Combustion heaters are an important source of pollution indoors. It will be measured: NO<sub>x</sub>, SO<sub>2</sub>, CO, PM<sub>2,5</sub> y PM<sub>10</sub> continuous and discreet form at indoor and outdoor of two households with different heating energy; kerosene and electricity (control home) respectively, in addition to environmental parameters such as temperature. With the values obtained in the 'control home' it will be possible estimate the contaminants transport from outside to inside of the household and later the contribution generated by kerosene heating. Transporting the emissions from burning kerosene to a photochemical chamber coupled to a continuous and discreet measuring system of contaminants it will be evaluated the oxidation of the emissions and formation of secondary particulate matter. It will be expected watch a contaminants transport from outside to inside of the household and the kerosene emissions present a high potential of formation secondary particulate matter.

**Keywords :** heating, indoor pollution, kerosene, secondary particulate matter

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