

DESIGN AND CONSTRUCTION OF A DEVICE FOR ANALYZING DISTRIBUTION OF AEROSOL NANOPARTICLES IN CONTROLLED CONDITIONS

J. Santamaría ⁽¹⁾, K. del Teso ⁽¹⁾, M. M. Bou-Ali ⁽¹⁾, C. Vaquero ⁽²⁾ and J.M. López de Ipiña ⁽²⁾

⁽¹⁾ Mondragon Goi Eskola Politeknikoa JMA, S. Coop.

Mechanical and Manufacturing Department

Loramendi 4, Arrasate, Spain

⁽²⁾ Tecnalia research and Innovation

Parque Tecnológico de Álava

C/ Leonardo Da Vinci 11, Vitoria, Spain

SUMMARY. A new device has been designed in order to determine the spatial distribution of aerosols nanoparticles under a thermal gradient influence, in controlled conditions. The device has four evenly distributed extraction chambers, which allow the study of the spatial distribution of the concentration of nanoparticles in the aerosol under themogravitational effect with forced convections conditions.