

# THESE

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par

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**APPLICATION D'UNE METHODE PLETHYSMOGRAPHIQUE  
A L'ESTIMATION DES RESISTANCES  
DES VOIES AERIENNES CHEZ LE LAPIN.**

*Electric measurements*

soutenu le 24 juin 1981 devant la Commission d'Examen

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## ABSTRACT

A very simple proposed plethysmographic calibration method, using a sensitive hot-wire anemometer as a pressure sensor, requires no cooperation of the test-subject and gives a wider range of respiratory mechanics measurements than the classical plethysmographic method. The proposed method has previously been well justified by an aerodynamic simulation of respiration and its correspondent electrical model. The results of airways resistances and compliances obtained in rabbits correspond well to those found by the methods of classical plethysmography and oesophagian catheterism.

**Keywords:** Plethysmography, hot-wire anemometry, airways resistances and compliances ( of rabbits ).



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