

**A BROADBAND IMPLEMENTATION OF A COUPLED-  
CHAMBER METHOD FOR MEASURING  
AIR-FLOW RESISTIVITY**

By

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## ABSTRACT

Porous materials have many applications in acoustics. The acoustic behavior of these materials depends heavily on the structural properties of the material and has been modelled in terms of a wide variety of structural properties. The only such property common to all current models is air-flow resistivity. Currently, measurement of flow resistivity requires sophisticated equipment. However, a recently proposed technique uses traditional acoustical equipment. This technique performs measurements over a range of low frequencies using individual sine tones. The current project aims to show that a broadband source signal can produce comparable results and drastically improve measurement efficiency.