

ACOUSTICS2008/1106 Concept of Active Reverberation Box

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A quite small reverberation box with active controller system is proposed. If we try to measure the characteristics of acoustic materials, such as glass wool, in a small sized enclosure, there are few dominant modes which cause the condition that the incident wave to target material is biased toward the specific direction. As a result, the measured result shows the irregular distribution which depends on measuring point or evaluating method such as the reverberation time reading. The proposed system which utilized the active control enables us to create a plane wave with arbitrary direction in the enclosure. Therefore it has possibilities of solving the problems caused by insufficient incident condition. Also, in this study, the two evaluating strategies that the traditional reverberation time method and the steady state analysis method are concerned.