

Probe-Tube Microphone Assembly

Published November 12th, 2025

Mead Killon, PhD

Edgar Villchur and Mead C. Killion

Journal of the Acoustical Society of America 57, 238-240, 1975.

SOMETHING ABOUT MEAD

Mentors to Mead Killon comprise a special group, and you will find them among the co-authors in this issue. Ed Villchur was one of them. He was an esteemed role model to Mead, not only for his inventiveness in the remediation of hearing impairment but also for his highest-quality writing. I recall that Mead regularly asked Ed to preview his drafts, hoping to be sure they were up to snuff. [This 1975 article](#), with Ed Villchur as first author, shows Ed's inventiveness and superb writing craft, which, in collaboration with Mead, helped set Mead on a pursuit he would pursue much later. The article describes a probe-microphone apparatus intended for research. One of Mead's very successful projects was the development of a widely used, clinically viable probe-tube microphone, the ER-7C, with its very flexible 1-mm outer-diameter tube, which is used in many commercial real-ear systems.

SUMMARY (Transcribed Abstract)

A method of making in-the-ear probe-microphone measurements is described, using readily available equipment. The procedure is designed to make such measurements easier and safer than they have been in the past. Probe-tube microphone measurements of sound pressure in the human ear can provide data of great value, but such measurements are not used routinely because of the risk of injury to the subject. ...A relatively simple and inexpensive method of making in-the-ear probe measurements is described.

Annotated by: Larry Revit