Validation of methods for prediction of clinical output levels of active middle ear implants from measurements in human cadaveric ears

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Supplementary Information

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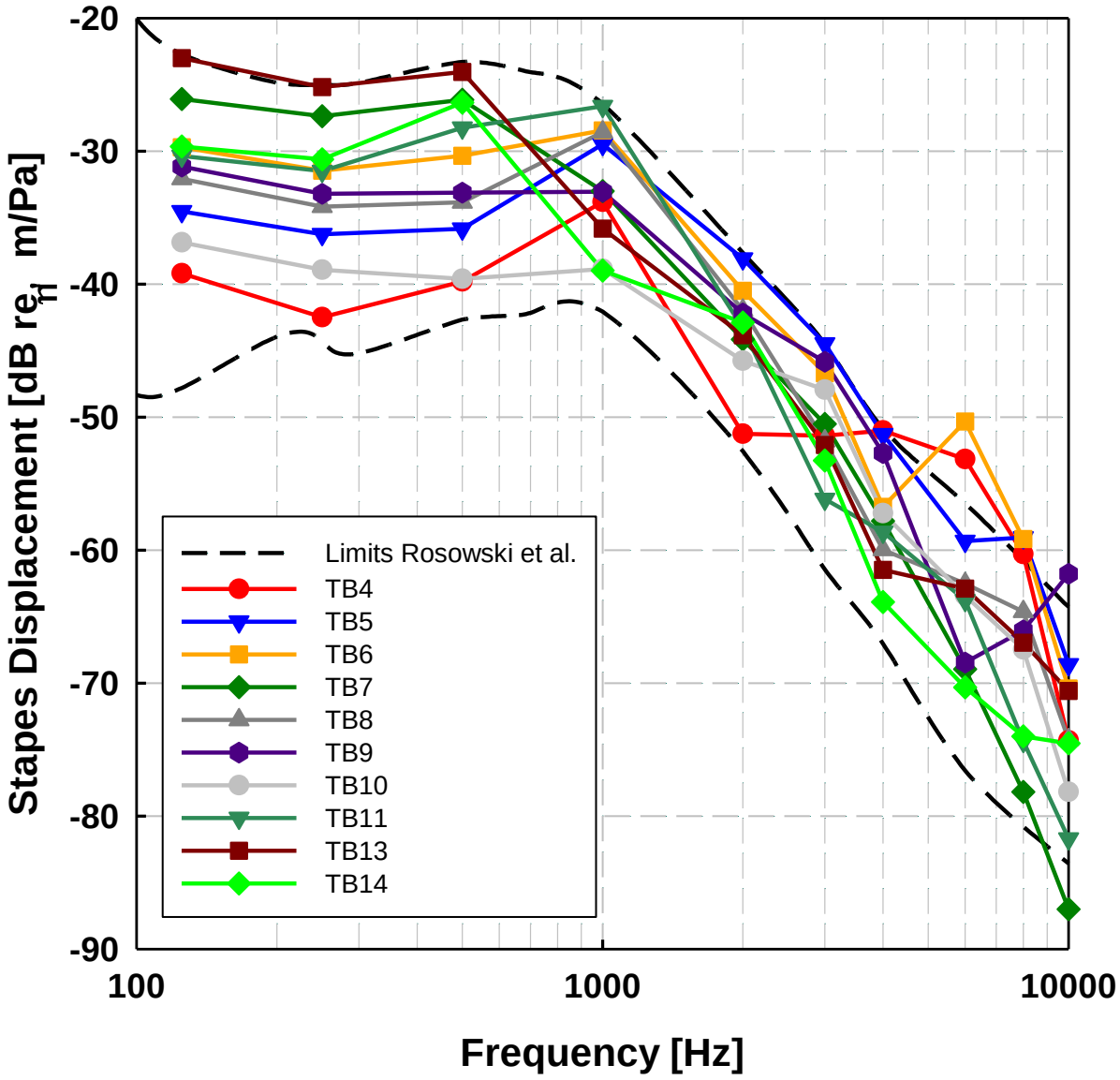
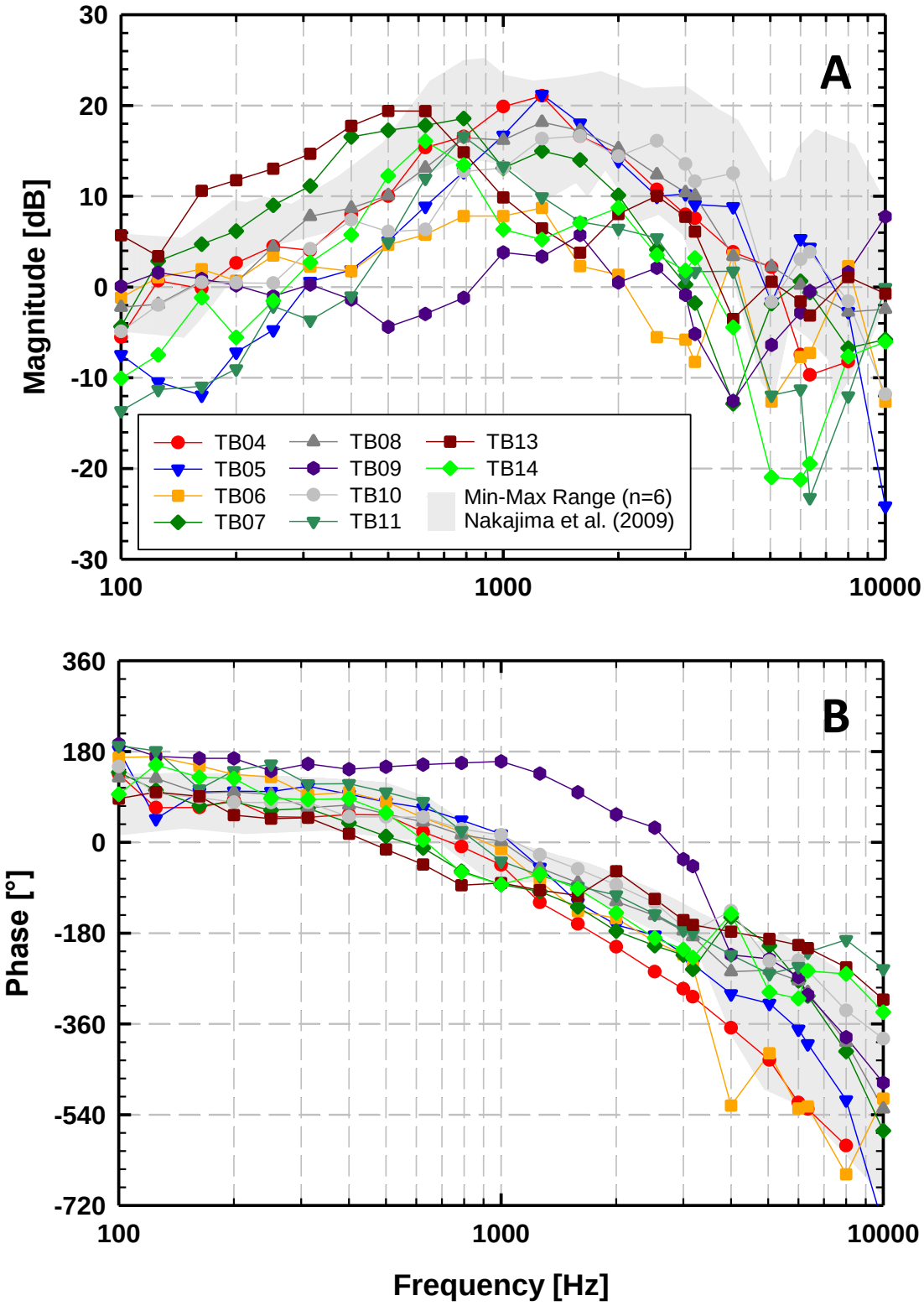
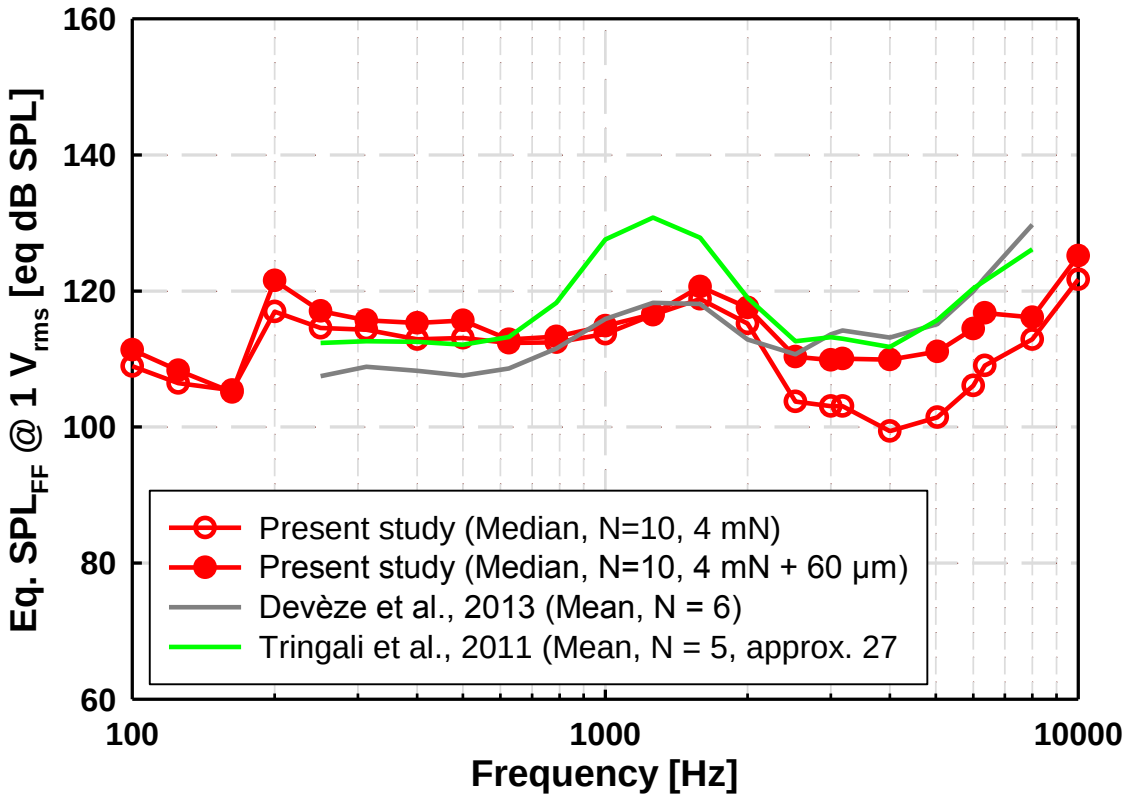


Supplementary Figure 1: Stapes displacement responses to sound stimulation at the tympanic membrane in temporal bone preparations used for experiments. The black dashed lines depict the limits given by Rosowski et al.[3].



Supplementary Figure 2: Intracochlear pressure differences (ICPD) normalized to the outer ear canal sound pressure level (p_T). For comparison the range of results[16], obtained with a custom made pressure sensor are given as grey shaded area.



Supplementary Figure 3: Comparison of the T2 actuator output (eq. dB SPL_{FF}) in TBs, calculated from stapes vibration amplitudes, between the present study, Devèze et al.[4] and Tringali et al.[22]. Output levels in Devèze et al. and Tringali et al. were given as eq. ear canal SPLs [eq. dB SPL_{TM}] for nominally 1 V_{rms} actuator input voltage and have been converted to eq. free field SPLs [eq. dB SPL_{FF}] using tables I to III in Shaw et al.[19] to make them comparable to our data.