where ϵ is the dielectric of the ceramic, t is the thickness of the plating, d is the diameter of the disc, and h is the spacing between the two regions. In our study $\epsilon = 8.3 \times 10^{-9}$ F/m, $t = 6.35 \times 10^{-6}$ m, $d = 9.5 \times 10^{-3}$ m, and $h = 6.1 \times 10^{-4}$ m, so $C_s = 0.82$ pF. This value is fairly negligible in contrast to the capacitance between the two regions due to capacitive coupling via the front face (Fig. 2(b), C/4 $\simeq$ 600 pF). Increasing the spacing h decreases C_s and eliminates the possibility of isolation breakdown at high levels of excitation. This disadvantage of a large h is that more of the piezoelectric transducer becomes deactivated as h increases. Finally, there may be some transverse wave excitation in the piezoelectric due to the difference in polarity of the two regions on the back face. This difference may produce surface waves propagating in the ceramic. Whether such action occurs and whether it is detrimental to thickness mode use of the method in some cases, are questions which require further study. We saw no such effects in the transducers studied.

One disadvantage of the back-face connection is that the impedence is approximately four times that of the standard front and back plate connections (Fig. 8). For small elements this impedence may be quite high and therefore pose difficulties in achieving electrical match between the transceiver and the piezoelectric transducer. Further, twice as much drive voltage is required in the back only connection to apply the same voltage across the piezoelectric material as that required for the standard connection.

The back-only connection has two important advantages: it simplifies transducer fabrication, and it eliminates a protrusion from the front face where the usual front face connection occurs. The protrusion is particularly bothersome in small elements because it creates pattern distortion and impedes contact of matching material to the front face. Our finding that repolarizing the element permits back connections with no degradation to the radiation pattern is of major importance. We believe this design change will prove useful in the future in fabricating small transducer elements such as those used in arrays [3]–[8] and in such miniature devices as ultrasonic catheters [11]–[16] constructed for medical purposes. For example, in applications such as transurethral ultrasound scanning of the urinary bladder and gastrointestinal endoscopic scanning, size is a significant factor in the ability to deliver the transducer to the target area. Simplification in assembly will reduce manufacturing cost which is especially important with small devices which can break, disposable medical devices, and when a system must have multiple transducers.

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Correction to "Absence of a Mutagenic Effect of Diagnostic Ultrasound in the *Salmonella* Mutagenicity Test (Ames Test)"

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In the above paper,[1] on page 175 the last line of Table V should have read 8×10^7, 6×10^7, and 6×10^7. On page 176 the last line of the second column of Table VI should have read 1, 9×10^8.

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