Abstract Submitted
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Energy utilization in phonation[1] MICHAEL KRANE, ARL Penn State — A control volume analysis of energy utilization in phonation is presented. Conversion of subglottal airstream potential energy into work done vibrating the vocal folds, air flowing through the glottis, and radiating sound are described. An approximate numerical model is used to compute the contributions of each of these mechanisms, as a function of subglottal pressure, for normal phonation. An efficiency measure for each energy conversion mechanism is proposed.

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