

RELATION BETWEEN MECHANICAL AND
PIEZOELECTRICAL PROPERTIES OF PVDF FILMS

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In this study the relations between the piezoelectric and mechanical constants were derived and measured. From these results, it was known that the piezoelectric behavior was highly anisotropic than the mechanical one.

It was also proved that the piezoelectric activity is originated not from the volume change, but from the thickness change.

Ultimate tensile stress in poled film was higher than that in unpoled film. Modulus of films in normal to the drawing direction was higher than that in drawing direction after poling process. These results can be explained by the thermal effect of poling process.