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Revised for 'SENSORS AND ACTUATORS A: PHYSICAL'

Piezoelectric characteristics of PNN-PZT/Epoxy paint

sensor according to the poling conditions

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**Highlights** 

The optimal poling conditions of the PNN-PZT/Epoxy paint sensor are

acquired. The impact sensitivity of the PNN-PZT/Epoxy paint sensor is

proposed.

The analysis of variance is considered to check the interaction between the poling time

and poling electric field.

The poling temperature is fixed at room temperature.

**Abstract.** This paper deals with piezoelectric characteristics according to the poling condition

in order to improve the disadvantage of conventional poling treatment and find optimal poling

condition for the paint sensor. The paint sensor is composed with PNN-PZT (Pb(Nb,Ni)O<sub>3</sub>-

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