Sensing Technology Using Piezoelectric Rubber for Railways

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Piezoelectric materials are used for sensors because they generate electric voltage and electric current when the load applied to them. However, piezoelectric ceramics in which ordinary piezoelectric materials are restricted the application because of its hardness and brittleness. Therefore, piezoelectric rubber which piezoelectric ceramics particles are mixed in rubber are studied in RTRI. Piezoelectric rubber are expected to use for various application in railway fields, because the piezoelectric rubber have piezoelectricity and flexibility. In this paper, we introduce the useful application of sensor using piezoelectric rubber for railways.