Preface

This book is devoted to piezoceramic sensors, which are widely used in hydroacoustics, electroacoustics, medicine, measuring, test engineering and non-destructive control. The author and his co-workers’ work results are described here for the first time.

This book gives complete update information on various types of piezosensors. Each sensor transforms a physical value into an electric signal. Piezoelectric transducers and sensors, based on piezoelectric effects, are universal tools, applied for measuring various processes. They are used in research and in different industries to control the quality of production processes.

There are individual requirements for parameters of transducers and sensors to be applied in each sphere. This book gives fundamental information on technical designs and practical application of transducers and sensors. Sensors with unique qualities can be designed, according to the new technologies described. New methods of measuring physical values and designing new sensors (including piezosensors) are discussed in this book.

This book is intended for graduate students and specialists in hydroacoustics, non-destructive control, measuring technology, and development of automatic control sensors.

Cherkasy, Ukraine

March 2011

Valeriy Sharapov
Piezoceramic Sensors
Sharapov, V.
2011, XII, 500 p., Hardcover
ISBN: 978-3-642-15310-5