

# (12) United States Patent

Nakagawa et al.

# (54) TRANSDUCER COVER, METHOD FOR FORMING THE COVER, AND ULTRASONIC MEDICAL INSTRUMENT WITH THE COVER

(75) Inventors: Masaki Nakagawa, Kanuma (JP); Shinichi Tanaka, Kanuma (JP)

Assignee: Nakanishi Inc., Kanuma-shi (JP)

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See application file for complete search history.

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Primary Examiner — Amanda Lauritzen Moher (74) Attorney, Agent, or Firm — Jason D. Voight

### (57)**ABSTRACT**

A transducer cover for use in an ultrasonic medical instrument having a transducer is disclosed. The transducer cover includes a vibration absorbing layer of a generally cylindrical form made of a synthetic resin having a vibration absorbing property, and a chemical blocking layer of a generally cylindrical form made of a synthetic resin which is impermeable to water and chemicals. The vibration absorbing layer and the chemical blocking layer are coaxially laminated, and capable of sealing arrangement over and around the transducer. Also disclosed is an ultrasonic medical instrument having an ultrasonic transducer and the transducer cover, and a method for forming the transducer cover over and around an ultrasonic transducer of an ultrasonic medical instrument.

# 4 Claims, 8 Drawing Sheets

