

## **PROCESSING APPARATUS AND VIBRATION DETECTING METHOD**

### **ABSTRACT**

In a processing apparatus, a vibration detecting unit includes a light source, an interference unit configured to apply light emitted from the light source to a measurement target member and generate an interference pattern image. A control unit includes a storage section configured to store a first interference pattern image captured at a predetermined timing by the imaging unit and a second interference pattern image captured at a timing different from the timing of the first interference pattern image by the imaging unit, a comparing section configured to compare the first interference pattern image and the second interference pattern image stored in the storage section with each other, and a vibration detecting section configured to detect vibration on the basis of the first interference pattern image and the second interference pattern image compared with each other by the comparing section.

[Fig. 1]