

ABSTRACT

REFLECTANCE DETECTION METHOD AND REFLECTANCE DETECTION APPARATUS

There is provided a reflectance detection method in which a workpiece is irradiated with a laser beam and reflectance is detected. The reflectance detection method includes a first detection step of irradiating, with a light amount H_0 , the workpiece with a laser beam with a first wavelength X_1 shorter than a detection-target wavelength X regarding which reflectance is desired to be detected and detecting a light amount H_1 of reflected return light, a second detection step of irradiating the workpiece with a laser beam with a second wavelength X_2 longer than the detection-target wavelength X with the light amount H_0 and detecting a light amount H_2 of reflected return light, and a reflectance calculation step of employing H calculated based on an expression shown below as the light amount of return light obtained when the workpiece is irradiated with a laser beam with the detection-target wavelength X and calculating reflectance obtained when the workpiece is irradiated with the laser beam with the detection-target wavelength X based on H/H_0 .

$$H = H_1 + (H_2 - H_1) \times (X - X_1)/(X_2 - X_1)$$

(Figure 2)