ABSTRACT

DIAMOND IDENTIFICATION APPARATUS

A diamond identification apparatus is disclosed, the diamond identification apparatus comprising a support platform for receiving a gemstone at an observation position, a first light source arranged to emit light at a predetermined angle towards the observation position and a first photodiode arranged to detect an amount of light from the first light source being reflected from the gemstone at the observation position. The diamond identification apparatus further comprises a second light source arranged to emit light towards the observation position, a second photodiode arranged to detect light from the second light source that passes through the gemstone at the observation position and a processor unit. Wherein the processor unit is configured to determine that the gemstone is a diamond in response to the amount of light detected by the first photodiode, and if the gemstone is determined to be a diamond, then determine that the diamond is natural in response to the second photodiode not detecting light.

[Figure 1]