

LASER Types and uses →

There are many types of lasers, and they are categorized based on the type of medium at which they are used. This can be solid, liquid, gas or semiconductor.

(1) Solid-State Lasers →

These lasers are made up of solid media, like ruby or crystalline. The lasers have a flash tube wrapped around it to excite the electrons.

These types of lasers are typically used for target designation systems by military applications and also to drill holes in metals.

(2) Gas Lasers →

These types of lasers are made out of helium or helium-neon. They are used to produce characteristic red laser light.

These lasers are powerful and efficient and are used for industrial cutting and welding applications.

(3) Liquid Dye Lasers →

The liquid dye lasers use liquid dyes like rhodamine in a liquid solution as their medium. In these lasers, the electrons are excited either by an arc lamp, flash lamp, or another laser.

Liquid dye lasers can produce a broader band of light frequencies as compared to solid-state or liquid lasers and are used in a variety of applications.

(4) Semiconductor Lasers →

These types of lasers are very cheap to produce and hence found in several electronic devices like laser printers and barcode scanners.

These are also called diode lasers as they use LEDs to generate light in a monochromatic pattern.

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