

L A S E R

L ⇒ LIGHT

A ⇒ AMPLIFICATION

BY

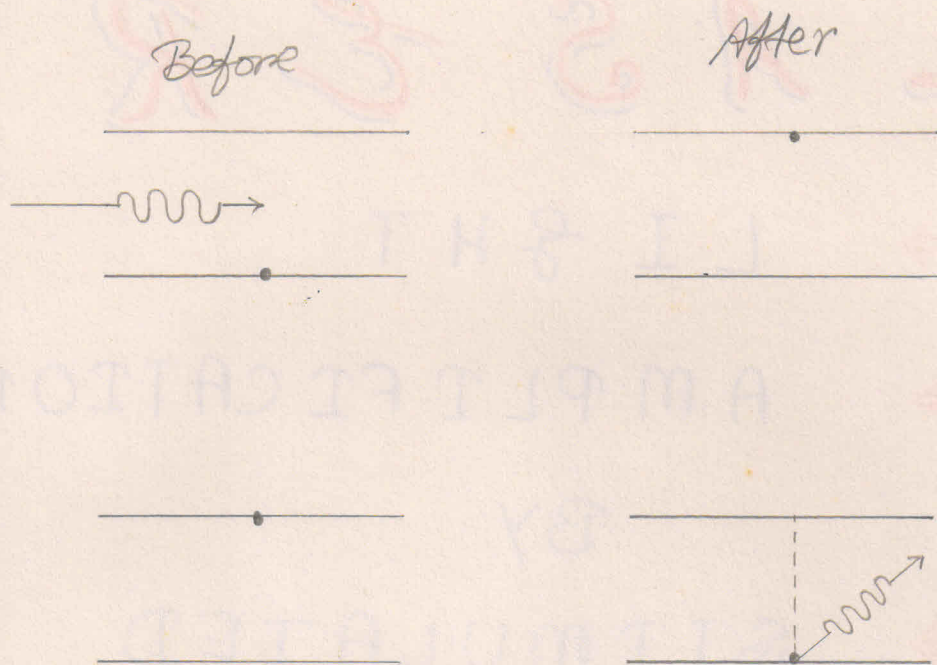
S ⇒ STIMULATED

E ⇒ EMISSION

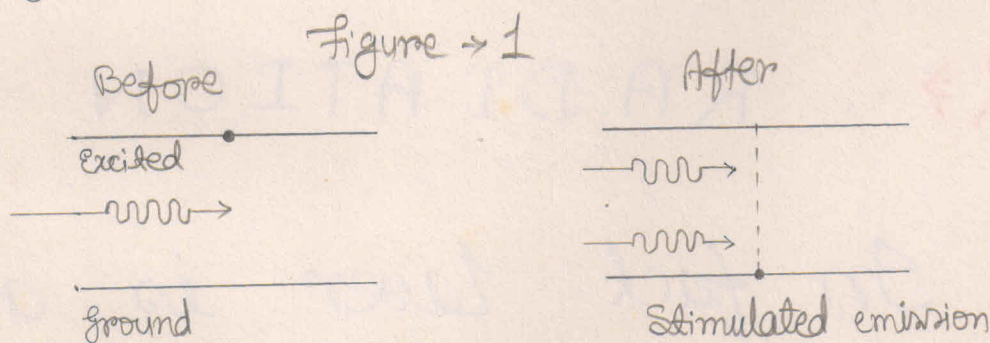
OF

R ⇒ RADIATION

In fact laser is an acronym for Light Amplification by Stimulated Emission of Radiation.



Ordinary
or spontaneous emission of $h\nu$
when excited atom returns to
ground state.



The excited atom receives
stimulating photon $h\nu$ called the
seed photon output is amplified
light.

Figure \rightarrow 2

An schematic diagram for amplification of light is shown in Fig 3 where output input ratio is plotted on y-axis and distance traversed by light is plotted along x-axis.

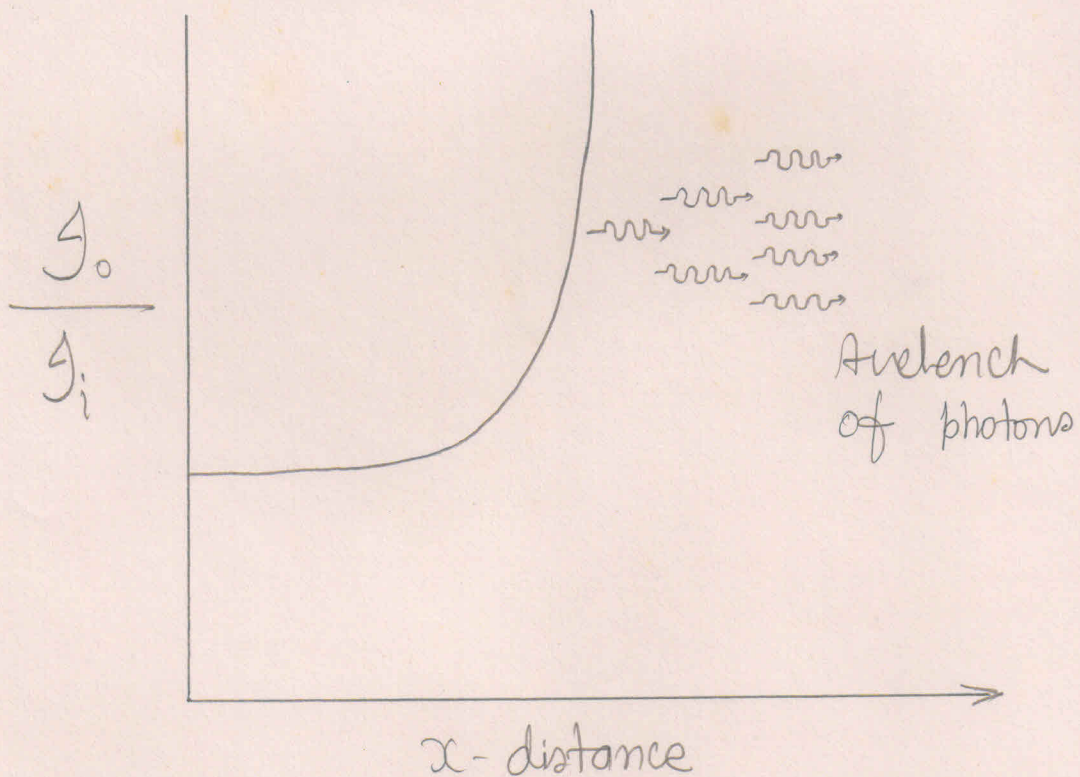


Figure 3: Amplification of light in a laser instrument.

The number of excited atoms is more than that in ground state or zero energy state. This condition is known as population inversion. Due to this there is amplification of the stimulated emission.

