



WELCOME

LASER

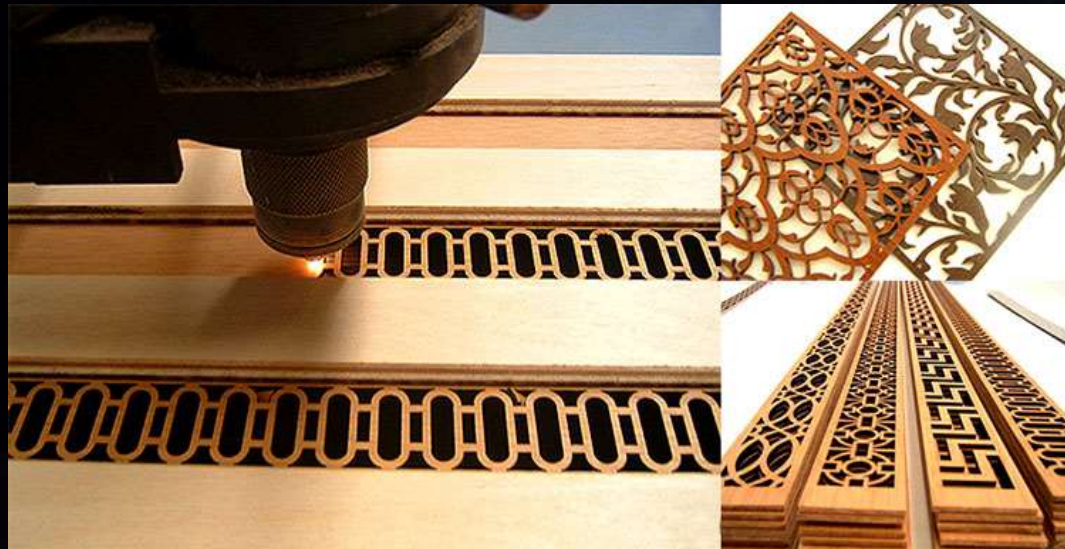


LASER

- Light Amplification by Stimulated Emission of Radiation.
- Theodore Maiman (1960).
- Monochromatic & extremely intense.

APPLICATIONS

- Welding
- cutting
- laser fusion

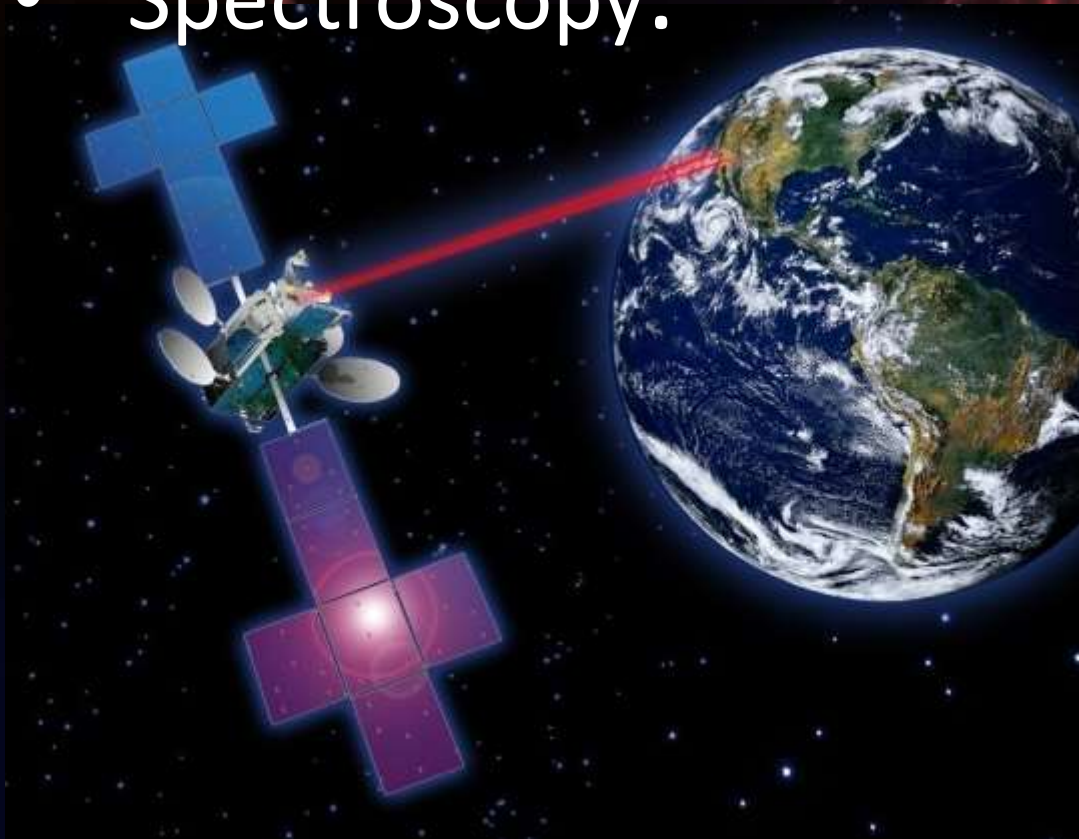


- Directional properties of laser beams, they can be focused to areas of few.
- Surgery, material-processing, Compact Disc.



High spectral purity :

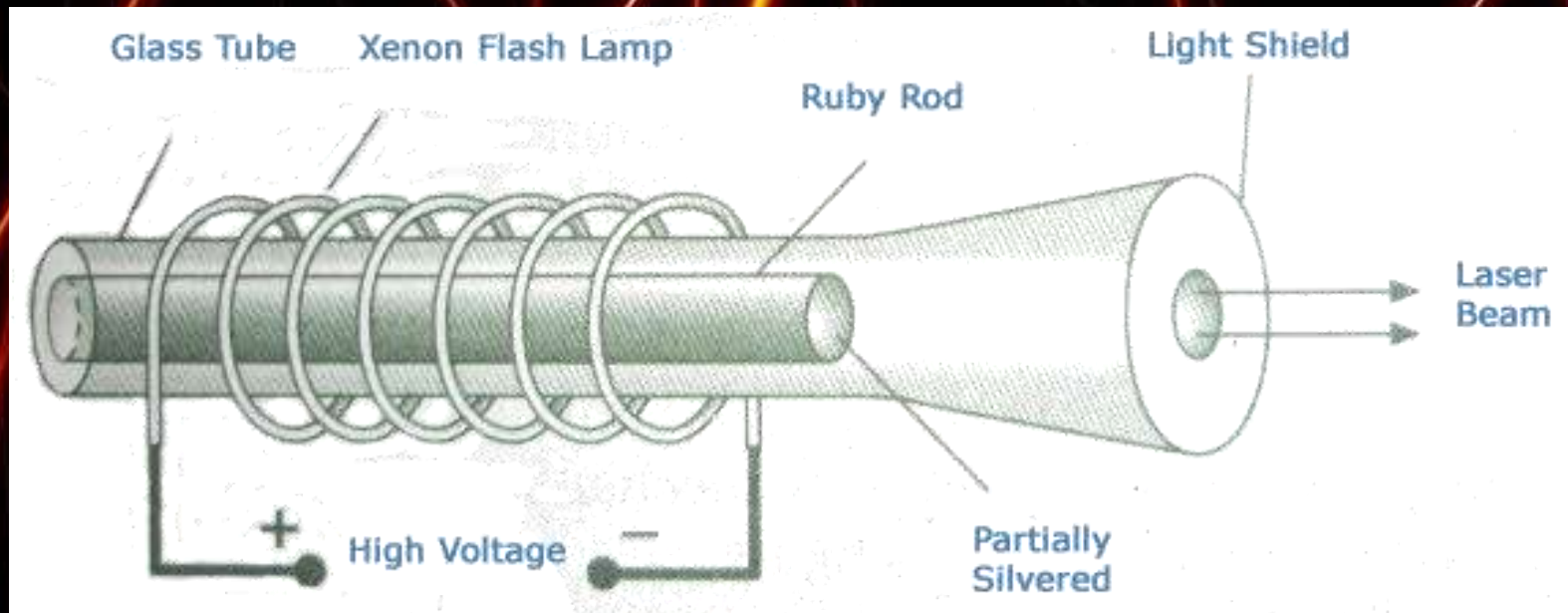
- Holography,
- Optical communications,
- Spectroscopy.



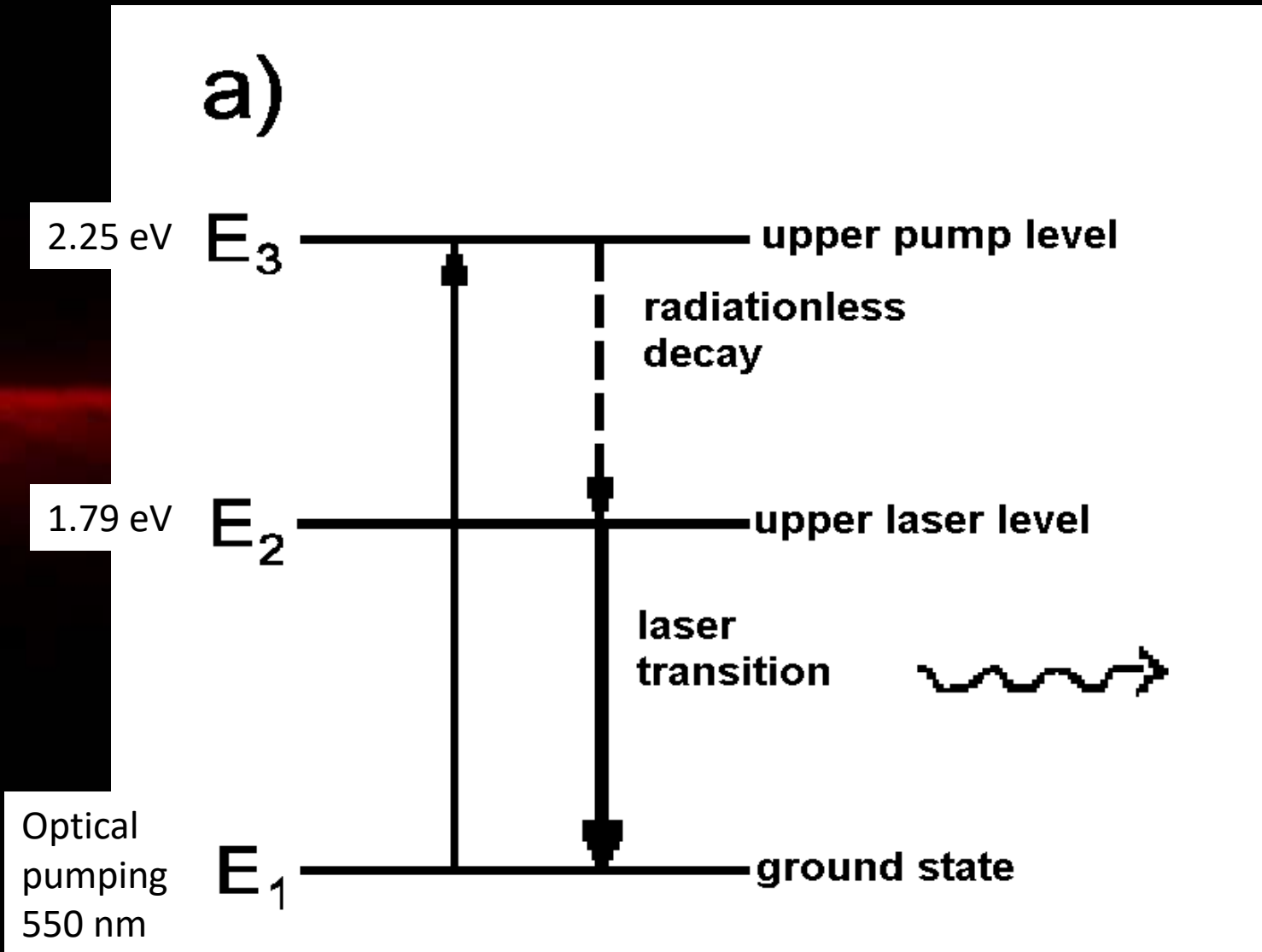
TYPES OF LASER

1. RUBY LASER

Fabricated by Maiman (1960),
based on three energy levels.

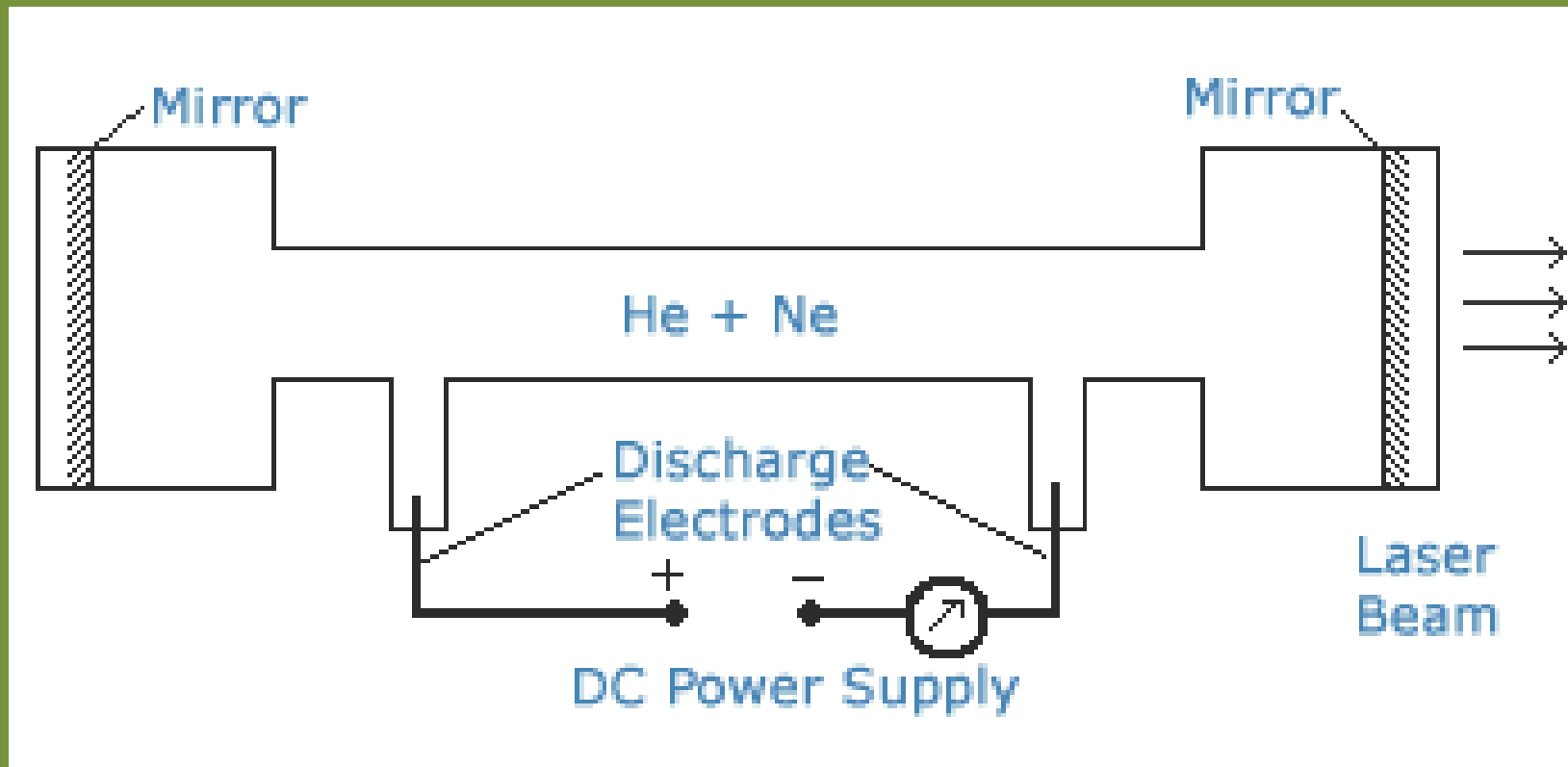


Energy levels of chromium ion

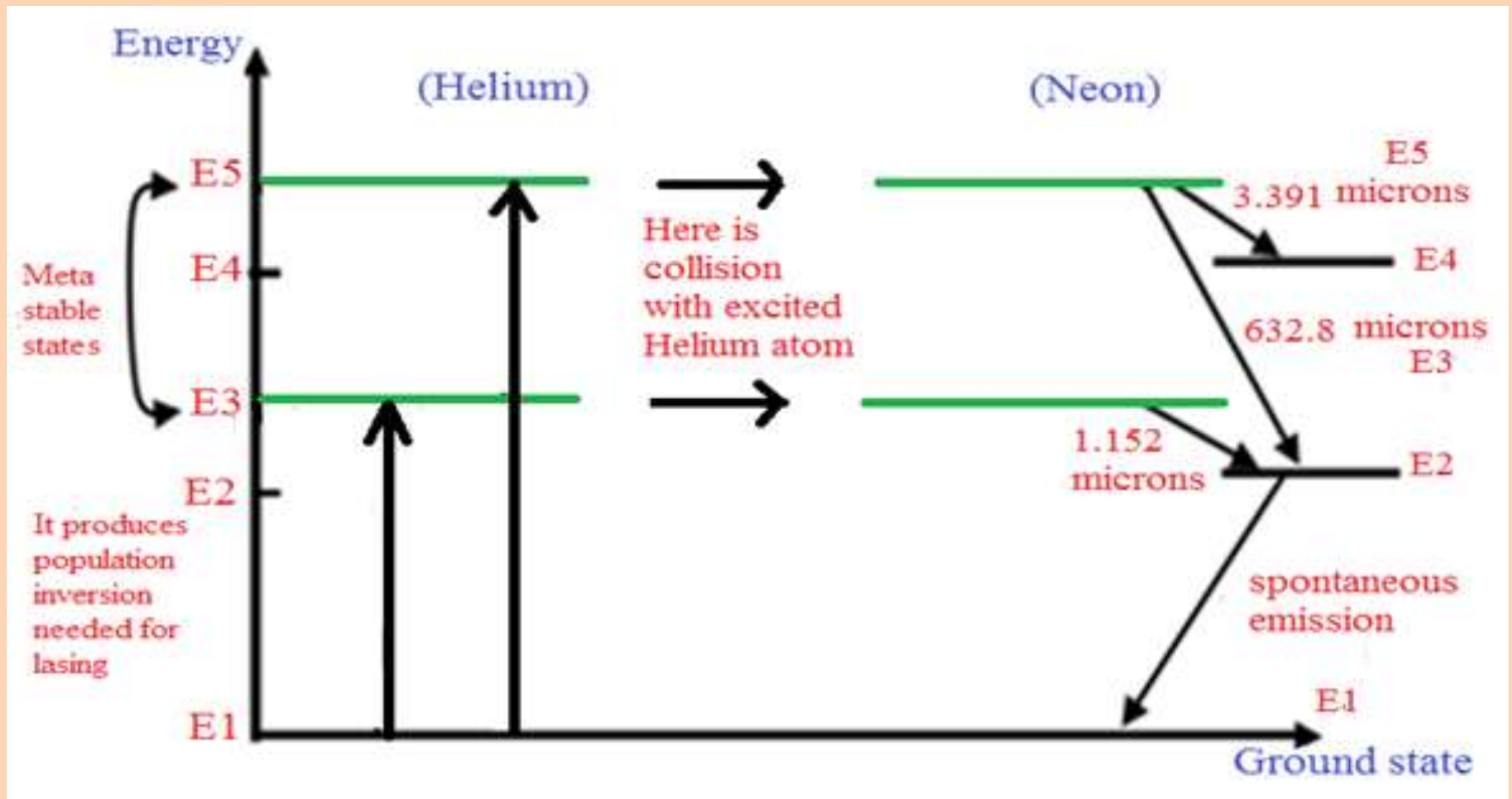


2. He-Ne LASER

Fabricated by Ali Javan & co-workers
in USA



He-Ne : Energy levels



3. Semi- Conductor Laser

- Fabry- perot cavity
- Optical communication
- GaAs

