

## Semiconductor a laser parametric property

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**Anotatsiya:** This article semiconductor a laser parametrli we kind of and them about many of the information given.

**Key words:** Laser, semiconductor, gas, electromagnetic waves, monoxromatik, kogerent, mirror, light, pressure, radiation

All of us history as it is known the light of the mandatory radiation using to strengthen the laser that we will say. Laser radiation of ultraviolet, infrared and prominently visible range of electromagnetic waves. These waves, atoms and molecule binding on the irradiation based generated it. Such radiation is generated in which the device is laser or optical quantum generator is called.

Laser and other light sources of kogerent, monoxramatikligi, very small this under the orientation of with, the light energy of the large spectral density, very high vibration to a frequency of having with is the difference. Acute to the environment according to the laser of the following groups are divided:

- hard solids and liquids prepared
- gauze
- a yarimo'tkazgich
- ekzimer
- chemical laser.

All laser reverse link optical resonator (two mirror) using out is carried. The mirror between the active substance is placed. Light waves reflection from the back again of the active substance from which will be mandatory to pass to rise they bring. The mirror of one partially transparent if it is unlimited a lot of take then pushed nuritashqariga out going to serve will.

Laser 2 different work mode, able is. You which continuous energy from a source when used, a continuous thin light yield and make can. You are the source impulyerli energy if you give, laser light impulsli.

Yarimo'tkazgich a laser Gaaga laser active environment yarimo'tkazgichlarda that is. Such a laser in the environment of the optical and electronic network flow using active in the position brings. This type of laser in laser undergo conductivity – valent zones and donor-akseptor levels among you. These laser diod of is called. The yarimo'tkazgich diod thickness  $\text{mm}^2$  the crystals of a grid composed. This laser diod of is called. The yarimo'tkazgich diod thickness of 0.1 mm and the surface of a few  $\text{mm}^2$  the crystals from the plate is. This is the diod by the right vine o'tkazliganda electronic network high zones or levels held inversiya condition take place will be. Electronic network of the lower zone (or are satx) to when passed electro-kovaklar rekombinatsiya as a result of separated energy at the expense of laser light of polymorphs is observed. Gaaga from laser outgoing infrared light to'lqin length =0,84 mkm. Yarimo'tkazgich a laser active substance **cas focusing** (red and infrared light), **Cd** (blue light), **cd quite** (red,dark red, light)in which the laser is available. Yarimo'tkazgich a laser structure is simple,the size is small and long used gets.

In the laser light with the power of a solid body with a laser, liquid body laser, gauze laser and yarimo'tkazgich the laser procedure **will work a useful factor** while yarimo'tkazgich a laser, the liquid with solids laser, gauze, laser and yogurt solids with a laser in the order of reduced it. Light ingichkaligi (narrow angle under when they were directed) gauze laser in most good,yarimo'tkazgich a laser ,while the most bad.

Yarimo'tkazgich the injection of the laser

The same as other hard types of the emitter asLED each how optoelektron of the system, an important element is. Both of the device and also performance fonomenga is based on.

**ELEKTROLUMINESANS.**The above semiconductor the issuer to as elektroluminesans mechanism by out carried radiation rekombinatsiya through sent you balance charge carriers, p-n combination.

First LED the world in the twentieth century 50-60 of the year at the end and in 1961 he appeared to have. **N.G. Basov, o. n. Kroxin** and **Yu.M. Popov** injection degenerate conditions apply to the offer you make p-n combination of x the laser effects for.

In 1962, american fiziklar **R. Xoll** and sort yarimo'tkazgich the LED 's spectrum the line narrowing that vomiting etishmumkin this laser effects manifested to be (SUPER TRANSPORTER) as interpreted has been. In the 1970s Russian fiziklar of **J. I. Alferov** sort first heterostrukturali the laser. This device 2000 in physics for the Nobel prize is awarded , which is the mass of the series work out the unsuitable make. Present at the time yarimo'tkazgich a laser mainly computers, audio and video from the disk data write and read in the device widely applied.

Yarimo'tkazgich a laser main advantages:

- 1) **the income** by provided the high - efficiency pump energy of coherent radiation into energy convert.
- 2) **Small onl the** generation mode installation short xarakterli time due to.
- 3) **compact the** huge optical income get to the yarimo'tkazgich feature with associated.
- 4) **a simple device** for low voltage electric supply ,integrated circuits suitable leads (mikrochiplar).
- 5) **Chance the wave length of a flat set** of yarimo'tkazgich the optical properties of temperature, pressure and others dependence due to a wide range.

#### Used literature:

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2. Tarasov s. a., Pixi n. a. yarimo'tkazgich a optoelektron devices.
3. [www.kutubxona.uz](http://www.kutubxona.uz)