The laser processing method according to any of claims 1 to 3, wherein

a pulse half value width of the pulsed laser is 200 ns or less.

[Claim 5]

The laser processing method according to any of claims 1 to 4, wherein

the non-single crystal semiconductor is silicon.

[Claim 6]

The laser processing method according to any of claims 1 to 5, wherein

the scanning pitch is 5 to 20 μm.

[Claim 7]

The laser processing method according to any of claims 1 to 6, wherein

the length in the scanning direction of the base of the rising section formed on the back end side in the scanning direction of the pulsed laser beam directed to the semiconductor film by the irradiation of the semiconductor film with the pulsed laser is measured , and the scanning pitch is determined based on a result of the measurement.

[Claim 8]

A laser processing apparatus comprising:

a pulse oscillation laser light source that outputs a pulsed laser at a predetermined repetition frequency;