

ABSTRACT OF THE DISCLOSURE

ENERGY BEAM IRRADIATING APPARATUS

An energy beam irradiating apparatus includes a substrate holder, a moving stage, an energy beam
5 irradiating mechanism, and a control unit. A disc-like substrate is attached to the substrate holder which includes a holder main part on which the disc-like substrate is mounted and a pressing plate, the disc-like substrate being held between the holder main part
10 and the pressing plate with a formation region of an irradiation pattern on the disc-like substrate and a partial region of at least one of an outer edge and an inner edge of the disc-like substrate being exposed. The moving stage moves the substrate holder. The
15 energy beam irradiating mechanism irradiates a surface of the disc-like substrate attached to the substrate holder with an energy beam. The control unit causes the moving stage to move based on a movement pattern with a reference point set in advance on the moving
20 stage as a reference so that an irradiation pattern is formed on the surface of the disc substrate by irradiation with the energy beam. During formation of the irradiation pattern, the control unit calculates a center of the disc-like substrate based on at least one
25 part of an outline of the exposed outer edge or inner edge of the disc-like substrate and sets the calculated center as the reference point.