

ABSTRACT

Method for implanting single or multiply charged ions into a surface of a treated object and device for implementation of the method

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The invention concerns a method for single or multiply charged ion implantation into a surface of a treated object (30), said method including the step that consists in directing towards the surface of the treated object (30) an ion beam (12) produced by an ion source (1) of the electronic
10 cyclotron resonance (ECR) type, the method also including the steps consisting in:

- producing at least one primary electron beam (28) and directing said primary electron beam (28) so that it passes through the ion beam (12), and
- 15 • producing a secondary electron beam (34) by reflecting the primary electron beam (28) onto a target (32) once said primary electron beam has traversed the ion beam (12), the target (32) being oriented such that the secondary electron beam (34) falls onto the surface of the treated object (30).

20 The invention also concerns a device (14) for implementing the implantation method.

Figure 3