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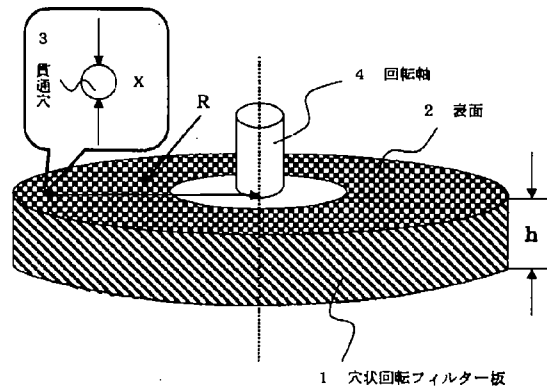
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(54) Title: FILM DEPOSITION APPARATUS HAVING HOLE-LIKE ROTARY FILTER PLATE FOR CAPTURING FINE PARTICLES, AND FILM DEPOSITION METHOD

(54) 発明の名称: 微粒子捕捉用の穴状回転フィルター板を有する成膜装置及び成膜方法



- 1... HOLE-LIKE ROTARY FILTER PLATE
2... SURFACE
3... THROUGH HOLE
4... ROTARY SHAFT

(57) Abstract: [PROBLEMS] An apparatus for depositing a film by adhering scattering fine particles having the thin-film deposition component and produced by laser ablation, sputtering, arc discharge, or the like, to a substrate. Droplets can be captured easily using an easy-to-manufacture and inexpensive filter, and the captured particles are infallibly prevented from being released again not to contaminate the thin film. [MEANS FOR SOLVING PROBLEMS] A hole-like rotary filter plate produced by making a large number of through holes in a disc and rotatable at a high rotational speed about the center of the disc is provided between a target and a substrate. The filter plate is arranged such that only fine particles passing through the through holes are deposited on the substrate and fine particles of low flying velocity become droplets. The droplets are captured on the inner surface of the through holes. Preferably, the ratio of the total surface area of the through holes to the total surface area of the hole-like rotary filter plate is set at 80% or above, and the through holes have inside diameters larger than the diameter of the surface part of the filter plate.

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