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(54) Title (EN): EXPOSURE APPARATUS, EXPOSURE METHOD, AND DEVICE PRODUCING METHOD

(54) Title (FR): APPAREIL D'EXPOSITION, PROCEDE D'EXPOSITION ET PROCEDE POUR PRODUIRE LE DISPOSITIF

(54) Title (JA): 露光装置、露光方法、デバイスの製造方法

(57) Abstract:

(EN): An exposure apparatus forming a liquid immersion region by supplying a liquid on portion on a substrate and forming a predetermined pattern on the substrate through the liquid. The apparatus is characterized in that a preliminary liquid immersion region that is capable of holding on the substrate a portion of the liquid is formed on the outer periphery of the liquid immersion region. The liquid placed between the lower face of a projection optical system and the surface of the substrate is prevented from being separated from the lower face of the projection optical system as the projection optical system and the substrate relatively move.

(FR): L'invention concerne un appareil d'exposition formant une région d'immersion liquide par alimentation d'un liquide en partie sur un substrat et formant un motif prédéterminé sur le substrat à travers le liquide. L'appareil est caractérisé en ce qu'une région d'immersion de liquide préliminaire capable de maintenir sur le substrat une partie du liquide est formée sur une périphérie extérieure de la région d'immersion liquide. Le liquide placé entre la face inférieure d'un système optique de projection et la surface du substrat est conçue pour ne pas être séparée de la face inférieure du système optique de projection, lorsque le système optique de projection et le substrat bougent sensiblement.

(JA): 基板上の一部に液体を供給して液浸領域を形成し、前記液体を介して前記基板上に所定のパターンを形成する露光装置において、前記液浸領域の外周に、前記基板上に液体の一部を保持可能な予備液浸領域が形成されることを特徴とする。投影光学系の下面と基板表面との間に配置される液体が、投影光学系と基板との相対移動に伴って投影光学系の下面から剥離することを防止することができる。

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