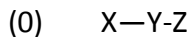


UV decomposable molecules and a photopatternable monomolecular film formed therefrom

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Abstract

Aspects of the invention provide a method of controlling the solid-state property of the solid-phase surface or controlling forming reactive region. The method can be attained by using a device for ejecting droplets and a molecule for inclusion in a SAM which can be photo-patterned in a short period of time using low energy UV radiation, that is TV radiation having a relatively long wavelength. The invention can provide monomolecular film that is formed from molecules comprising a structural component (B) which is hydrophobic and/or lipophobic, and a structural component (A) which decomposes when irradiated with UV light having a wavelength in the range 254-400 nm to cleave away a part of the molecule having the structural component (B) leaving a residual hydrophilic structural component (C). Further, the invention can provide a method of forming a film pattern comprising; at least a step of ejecting a droplet, which includes a compound represented as the following Formula (O), on a solid-phase surface having a functional moiety:



where, X represents a structure having reactivity to a functional moiety which exists at the solid-phase surface, Y represents a decomposable structure by itself and Z represents a structure which is capable of changing solid-state properties on the solid-phase surface or a reactive structure.