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(54) **(METH)ALLYLSILANE COMPOUND, SILANE COUPLING AGENT THEREFOR, AND FUNCTIONAL MATERIAL USING SAME**

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CPC ***C07F 7/0818*** (2013.01); ***C03C 17/30*** (2013.01); ***C07F 7/081*** (2013.01); ***C07F 7/0812*** (2013.01); ***C07H 23/00*** (2013.01); ***C08B 15/05*** (2013.01); ***C08B 37/0012*** (2013.01); ***C08J 3/126*** (2013.01); ***C08J 3/128*** (2013.01); ***C08K 9/06*** (2013.01); ***C08K 9/08*** (2013.01); ***C09K 3/18*** (2013.01); *C03C 2217/75* (2013.01); *C09C 3/12* (2013.01)

(58) **Field of Classification Search**

None

See application file for complete search history.

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(57) **ABSTRACT**

A (meth)allylsilane compound chemically bonded to various alcohol derivatives including polyol derivatives such as saccharides, is raw material used to cause a substrate to express functionalities such as a defogging property and separation characteristics for column chromatography, can be easily prepared, is easily purified, and is stable and easy to handle, and a functional material in which those functionalities are expressed, while silyl group-containing groups are conveniently carried at a high density on the surface of the substrate, by using the (meth)allylsilane compound as a silane coupling agent for silane-coupling to the substrate. The (meth)allylsilane compound includes a (meth)allylsilyl group-containing alkyl group or a (meth)allylsilylalkyl group-containing aralkyl group that is bonded to an alcohol derivative. In the functional material, the silane coupling agent is ether-bonded to surface hydroxyl groups exposed on a substrate through the surface hydroxyl groups by silane coupling to have an ether bond on the functional material.

4 Claims, No Drawings