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Surface modification of magnesium hydroxide sulfate hydrate whiskers using a silane coupling agent by dry process

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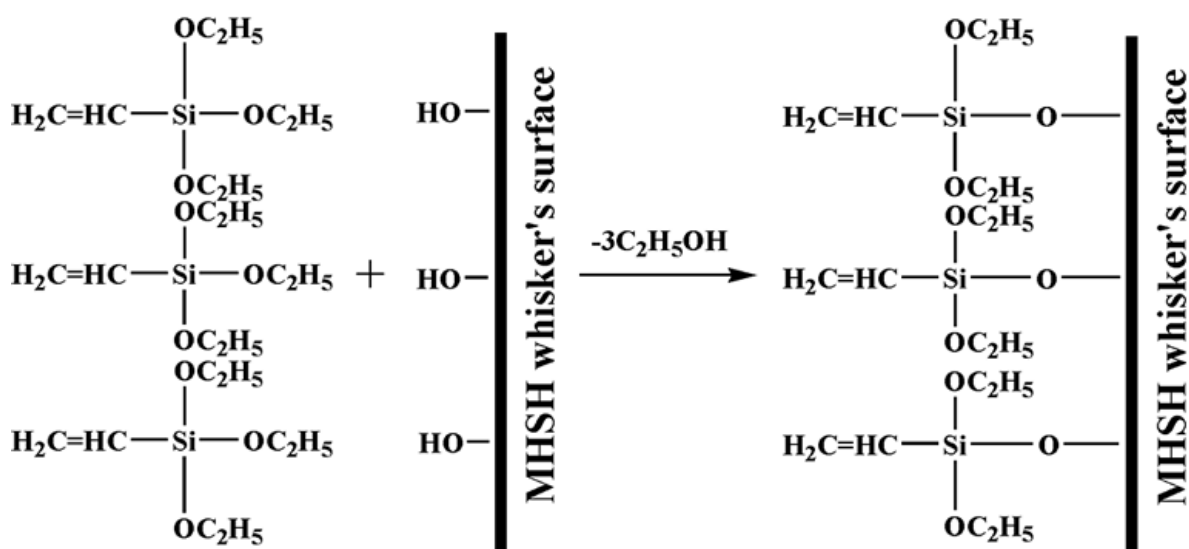
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Graphical abstract



Highlights

1. Dry process was adopted to modify the surface of MSHH whiskers using silane.
2. Si-O-Mg bonds were formed directly by the reaction between Si-OC₂H₅ and -OH of MSHH.
3. Dispersibility and compatibility of modified whiskers greatly improved in organic phase.
4. Thermal stability of whiskers was enhanced after modified.

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