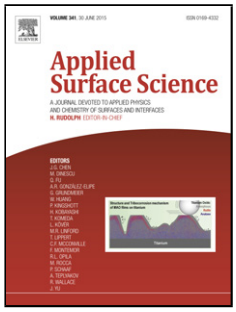

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Surface modification of magnesium hydroxide sulfate hydrate whiskers using a silane coupling agent by dry process

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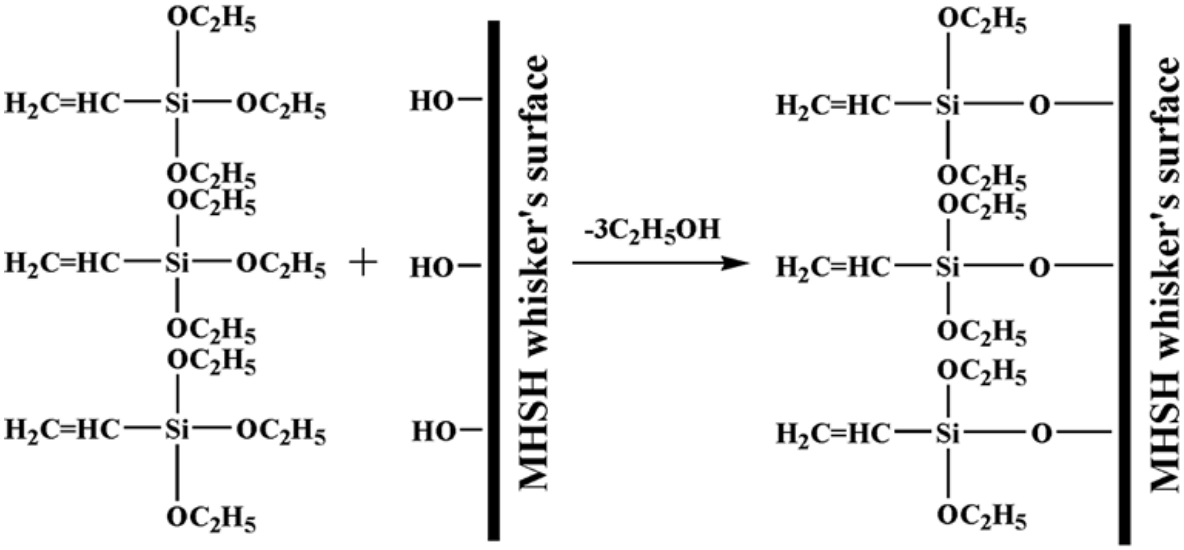
Graphical abstract



Highlights

1. Dry process was adopted to modify the surface of MHSH whiskers using silane.
2. Si-O-Mg bonds were formed directly by the reaction between Si-OC_2H_5 and -OH of MHSH.
3. Dispersibility and compatibility of modified whiskers greatly improved in organic phase.
4. Thermal stability of whiskers was enhanced after modified.