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## Variation of Surface Adhesion Force During the Formation of OTS Self-assembled Monolayer Investigated by AFM

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**摘要** Variation of the surface adhesion force during the formation of octadecyl trichlorosilane (OTS) self-assembled monolayer on a glass substrate surface was investigated by atomic force microscope (AFM). The research shows that the hydrophobicity and the adhesion force of the sample surface increases gradually while the substrate surface is covered by OTS molecules as the reaction proceeds. After 15 min reaction, a close-packed and smooth OTS self-assembled monolayer could form on the glass substrate surface with an advancing contact angle of 105° and an interfacial energy of 55.79 mJ.m<sup>-2</sup>.

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**Key words** [surface adhesion force](#); [atomic force microscope](#); [octadecyl trichlorosilane](#); [self-assembled monolayer](#)

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