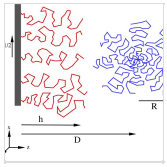

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Interpenetration-between-a-polymer-star-and-a-polymer-brush

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1 Works for me dx.doi.org/10.17504/protocols.io.bsmxnc7n

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SUBMIT TO PLOS ONE

ABSTRACT

By means of the density functional theory framework I tackle the long-standing problem of a polymer star interpenetrating with a polymer brush at thermal equilibrium. Remarkably, the star is repelled to the outside of the brush once it sucks into the brush. It turns out that there could be a highly fluctuating region at the brush edge. The highly fluctuating region would be responsible for discontinuous absoption transitions by brushes. However, up to an small interpenetration length, below which asphericity of the star is maintained, the star gets collapsed by sucking more and more into the brush.

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Interpenetration between a polymer brush and a polymer star at thermal equilibrium: A theoretical approach, Mike J. Edwards, BioRxiv (2018)

ATTACHMENTS

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