



Feb 22, 2021

Polymer-brushes-immersed-in-solvent-molecules

Mike Edwards¹¹IPFDD**1** Works for me dx.doi.org/10.17504/protocols.io.bsmync7w

Mike J. Edwards

Tech. support phone: +49 1746 125371 email: edwards.ph@yahoo.com

Mike Edwards

SUBMIT TO PLOS ONE

ABSTRACT

By means of density functional theory (DFT), influence of solvent molecules on polymer brushes is investigated. Osmotic pressure of solvent molecules gives rise to a stronger stretching of the brush chains in perpendicular direction. This suggests that the osmotic pressure of solvent molecules is a driving force in increasing thickness of brush layer.

EXTERNAL LINK

<https://doi.org/10.1101/404103>

THIS PROTOCOL ACCOMPANIES THE FOLLOWING PUBLICATION

Polymer brushes immersed in solvent molecules at thermal equilibrium: A theoretical approach, Mike J. Edwards, BioRxiv (2020)

ATTACHMENTS

[404103v2.full.pdf](#)

DOI

[dx.doi.org/10.17504/protocols.io.bsmync7w](https://doi.org/10.17504/protocols.io.bsmync7w)

EXTERNAL LINK

<https://doi.org/10.1101/404103>

PROTOCOL CITATION

Mike Edwards 2021. Polymer-brushes-immersed-in-solvent-molecules. **protocols.io**
<https://dx.doi.org/10.17504/protocols.io.bsmync7w>

MANUSCRIPT CITATION please remember to cite the following publication along with this protocol

Polymer brushes immersed in solvent molecules at thermal equilibrium: A theoretical approach, Mike J. Edwards, BioRxiv (2020)

KEYWORDS

Polymer brushes, Solvent molecules, Density functional theory framework (DFT)

LICENSE

This is an open access protocol distributed under the terms of the [Creative Commons Attribution License](#), which permits unrestricted use, distribution, and reproduction in any medium, provided the original author and source are credited

CREATED

Feb 22, 2021

LAST MODIFIED

Feb 22, 2021

PROTOCOL INTEGER ID

47512