

Bacterial attachment to patterned poly-(*N*-isopropylacrylamide) brushes

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The ability of **thermo-responsive polymers** to change from a **hydrophilic to hydrophobic state** is of potential interest for numerous applications including control of **bioadhesion**.^{1,2} Poly N-isopropyl acrylamide (PNIPAM) is known to exhibit a lower critical solution temperature (LCST) in water at 32°C and thus is an ideal model system for studying the effects of phase changes in solution on biological and other phenomena.³ We have now applied methodologies for generating functionalised patterned surfaces⁴ and characterising bioadsorptive processes⁵ to explore the attachment behaviour of bacterial species to synthetic substrates.

We prepared PNIPAm micropatterned domains by *in situ* ATRP⁴ of NIPAm from mixed SAMs on gold substrates and report here their performance during *in vitro* bioadhesion assays.

References

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