How does substrate geometry affect the surface-initiated controlled polymerization?

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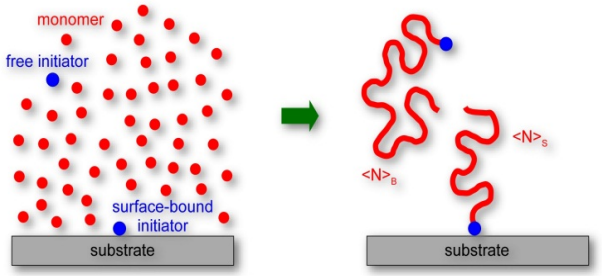
Objective: Investigate the properties of polymers prepared by simultaneous bulk- and surface-initiated controlled polymerization

Methods: computer simulations



Findings:

1) $\langle N \rangle_S$ decreases with increasing grafting density (σ) and decreasing fraction of grafts on the surface (η)
2) Rate of polymerization of surface-bound polymers decreases with increasing σ; polymers in bulk grow at a constant rate independent of σ