

Entropy and self-assembly

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During the past 60 years, the traditional picture of entropy as a measure of disorder has needed revision. This was largely driven by computer simulations, but has been supported by experiments on colloidal systems.

In my talk I will discuss some old examples of the unexpected role of entropy as an ordering force, but I will also discuss more recent surprises, such as the importance of entropy in the self-assembly of DNA-functionalized colloids and its possible relevance for targeted drug delivery.