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Self-assembly of triangular plates due to depletion interactions[1]
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We study, using Monte Carlo simulations, the self-assembly of triangular plates immersed in a bath of smaller colloidal particles. Due to the depletion interactions produced by the small particles, the triangular plates effectively attract each other and additionally, they orient with their vertices in the same direction as shown by calculating the orientational order parameter. This implies that the depletion interactions produce a torque perpendicular to the planes containing the triangular plates.

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