Título:
Janus fluids in 1D. A binary mixture

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Resumen:
We study a system consisting in a binary mixture of Janus particles in one dimension. The anisotropic character of the interactions is modeled by means of a hard-sphere potential or a square-well potential, depending on the faces of the pair of interacting particles. A theoretical approach provides us with an exact analytical expression for the radial distribution function, which allows for a direct comparison with Monte Carlo simulations.