

Title: Effective isotropic potential for dipolar hard spheres

Author(s): Teixeira, P. I. C. ^[1,2]

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Abstract: A new effective isotropic potential is proposed for the dipolar hard-sphere fluid, on the basis of recent results by others for its angle-averaged radial distribution function. The new effective potential is shown to exhibit oscillations even for moderately high densities and moderately strong dipole moments, which are absent from earlier effective isotropic potentials. The validity and significance of this result are briefly discussed.

KeyWords Plus: Integral-equation; Pair; Fluids; Separation; Systems

Reprint Address: Teixeira, PIC (reprint author) - Inst Super Engrn Lisboa, Rua Conselheiro Emídio Navarro 1, P-1959007 Lisbon, Portugal.

Addresses:

[1] Inst Super Engrn Lisboa, P-1950062 Lisbon, Portugal

[2] Univ Lisbon, Ctr Fis Teor & Computac, P-1649003 Lisbon, Portugal

E-mail Addresses: piteixeira@cii.fc.ul.pt

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