Asymmetric binary mixtures with attractive forces: towards a quantitative description of the potential of mean force

2002 J. Phys.: Condens. Matter 14 3845

(http://iopscience.iop.org/0953-8984/14/14/501)

INSTITUTE OF PHYSICS PUBLISHING JOURNAL OF PHYSICS: CONDENSED MATTER

J. Phys.: Condens. Matter **13** (2001) 3845–3847 PII: S0953-8984(01)30060-7

Erratum

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S Amokrane[1] and J G Malherbe 2002 *J. Phys.: Condens. Matter* **13** 7199

Groupe de Physique des Milieux Denses, Faculté des Sciences et de Technologie, Université Paris XII, 61 Av du Général de Gaulle, 94010 Créteil Cedex, France

E-mail: amokrane@univ-paris12.fr

Received 24 October 2001
Published 28 March 2002
Online at stacks.iop.org/JPhysCM/13/3845

(Some figures in this article are in colour only in the electronic version)

Due to an error in the production process, our paper entitled: 'Asymmetric binary mixtures with attractive forces: towards a quantitative description of the potential of mean force', was published with an incorrect set of figures. The correct set is given below.

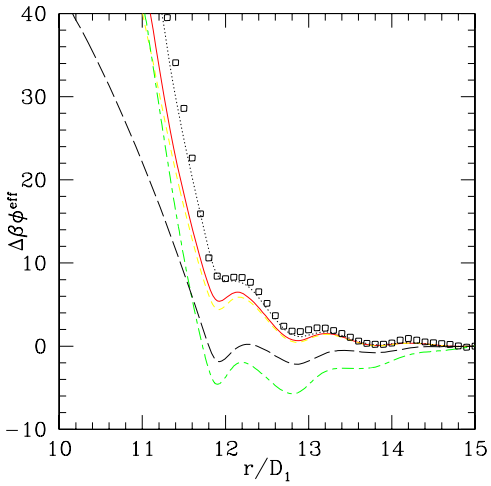

Figure 1. Potential of the mean force for a solvophilic macroparticle in a Lennard–Jones fluid (Sys. IV). Squares: MD simulation [1]; dotted curve: $\beta\Phi^{\text{eff}}_{RHNC}$ for $\sigma_{22} = 11.5D_1$; full curve: $\beta\Phi^{\text{eff}}_{RHNC}$ for $\sigma_{22} = 10D_1$; short dashes: $\beta\Phi^{\text{eff}}_{RHNC} - b_{22}$ for $\sigma_{22} = 10D_1$; long dashes: $\beta\Phi^{\text{eff}}_{DFT/\text{Sup}}$; and long dash/short dash: $\beta\Phi^{\text{eff}}_{HNC} \cdot \Delta\Phi^{\text{eff}} = \Phi^{\text{eff}}(r) - \Phi^{\text{eff}}(15D_1)$.

[1] To whom correspondence should be addressed.

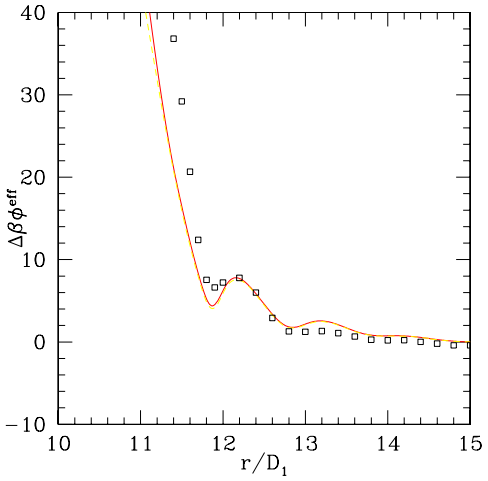

Figure 2. Potential of the mean force for a solvophilic macroparticle in a soft spheres fluid (Sys. III). Squares: MD simulation [1]; full curve: $\beta\Phi^{\rm eff}_{RHNC}$ for $\sigma_{22} = 10D_1$ and short dashes: $\beta\Phi^{\rm eff}_{RHNC} - b_{22}$ for $\sigma_{22} = 10D_1$.

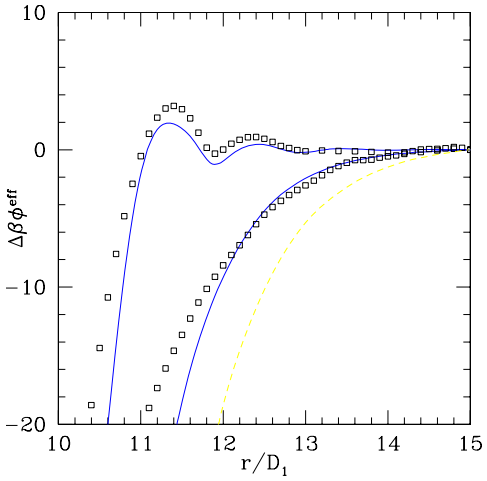

Figure 3. Potential of the mean force for a solvophobic macroparticle in a soft spheres fluid (Sys. I, upper curves) and a LJ fluid (Sys. II, lower curves). Squares: MD simulation [1]; full curve: $\beta\Phi^{\rm eff}_{RHNC}$ for $\sigma_{22} = 10D_1$; short dashes: $\beta\Phi^{\rm eff}_{DFT/{\rm Sup}}$ (for Sys. II only).

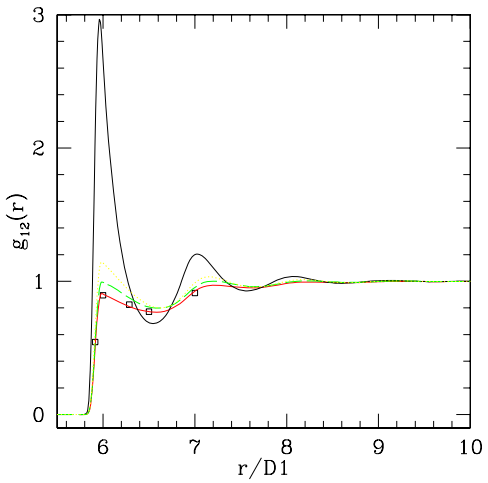

Figure 4. Solute–solvent pair distribution function for solvophobic macroparticle. full curves: $RHNC$, upper curve: soft spheres fluid (Sys. I). Three lower curves: LJ fluid (Sys. II), full curves: $RHNC$; dotted curve: mean field with Rosenfeld's weights; dashed curve: mean field with Tarazona's weights; squares: MD simulation [1].

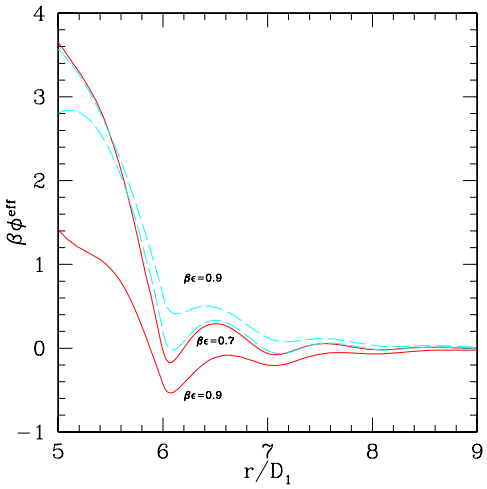

Figure 5. Potential of the mean force for a Yukawa macroparticle in a LJ fluid. The parameters of the model are given in the text. Full curves: $RHNC$; short dashes: DFT/Sup. The strength of the LJ solvent–solvent attraction is given in the figure.

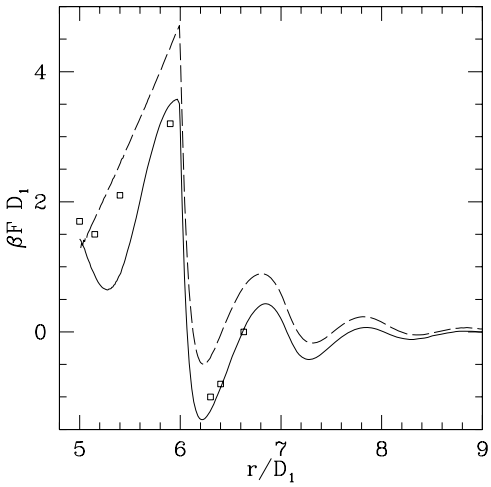

Figure 6. Mean force for a Yukawa macroparticle in a LJ fluid with $\epsilon* = 0.9$. Squares: MC simulation, full curves: $RHNC$; short dashes: DFT/Sup.

References

[1] Shinto H, Miyahara M and Higashitani K 1999 *J. Colloid Interface Sci.* **209** 79