

Мышлявцева М.Д.

Математическое моделирование сложных адсорбционных систем на поверхности твердых тел : метод трансфер-матрицы. Математическое моделирование, численные методы и комплексы программ

1. Myshlyavtsev A.V., Dongak M.D. (Myshlyavtseva M.D.) Statistics of adsorption on top and bridge sites of a square lattice: transfer matrix approach. / *J. Statistical Phys.* – 1997. – V. 87 – № 3/ 4 – P. 593-607.
2. Myshlyavtsev A.V., Myshlyavtseva M.D. Modeling of adsorption and phase diagrams for stepped surfaces: Transfer matrix approach. / *Applied surface science.* – 2007. – V. 253, № 13. – P. 5591 -5595.
3. Fefelov V.F., Gorbunov V.A., Myshlyavtsev A.V., Myshlyavtseva M.D. The simplest self-assembled monolayer model with different orientations of complex organic molecules. Monte Carlo and transfer-matrix techniques. / *Chemical Engineering Journal.* – V. 154, Issues 1-3, 15 November 2009. – P. 107-114.
4. Fefelov V.F., Gorbunov V.A., Myshlyavtsev A.V., Myshlyavtseva M.D. Model of homonuclear dimer adsorption in term of two possible molecule orientations with respect to surface: Square lattice. / *Phys. Rev. E.* 82, 041602 (2010) – P. 041602-1 – 041602-5.
5. Fefelov V.F., Gorbunov V.A., Myshlyavtsev A.V., Myshlyavtseva M.D., Akimenko S.S. Devil's staircase behavior of a dimer adsorption model. *Adsorption.* V. 19. Numbers: 2-4. 2013. – P. 495-499. DOI 10.1007/s10450-013-9471-1.
6. Gorbunov V.A., Akimenko S.S., Myshlyavtsev A.V., Myshlyavtseva M.D., Fefelov V.F. Adsorption of triangular-shaped molecules with directional nearest-neighbor interactions on a triangular lattice. / *Adsorption.* V. 19. Numbers: 2-4. 2013. – P.571-580. DOI 10.007/s10450-013-9480-0.
7. Gorbunov V.A., Myshlyavtsev A.V., Myshlyavtseva M.D., Fefelov V.F. Modeling of 1,4 – cyclohexadiene adsorption thermodynamics on Si(001)-2x1 surface. / *Surface Science,* V. 636, June 2015. – P. 1-7.
8. Fefelov, V. F., Stishenko, P. V., Kutanov V.M., Myshlyavtsev A.V., Myshlyavtseva M.D. Monte Carlo study of adsorption of additive gas mixture. / *Adsorption.* V. 22. Issue: 4-6. 2016. – P. 673-680. DOI: 10.1007/s10450-015-9753-x.