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Dynamic surface tension effects from molecular dynamics simulations¹ ALEX LUKYANOV, ALEXEI LIKHTMAN, University of Reading — We will present results of our recent large scale molecular dynamics simulations of dynamic surface tension behaviour in the case of a liquid-gas interface. We will demonstrate the mechanism of surface tension relaxation from a non-equilibrium state in several representative cases: long-chain flexible molecules with Lennard-Jones beads connected by FENE springs and binary Lennard-Jones mixtures (Kob-Andersen model). The methodology of the surface tension evaluation has been successfully tested against the Laplace law in all the cases.

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