

## Nanoscale physics

### **Structural and dynamical properties of argon-krypton binary mixture confined between graphite slabs: Molecular dynamics simulation.**

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The structural and dynamical properties of the ultra-thin layer of argon-krypton mixture confined between two graphite slabs have been calculated using the classical molecular dynamics simulation method. The dynamics of atoms were calculated at several fluid phase temperatures and slots' width. The mean square displacement functions and related diffusion coefficients have been simulated. The differences between transport properties in confined space and bulk material have been observed. The structures of confined layers were analyzed by the radial distribution and pressure tensions function calculated across the slot [1]. The non-uniform distributions of argon and krypton atoms inside the confined layer at fluid temperatures have been revealed.

Figure 1. The distribution of argon and krypton atoms across the slot

*1. Dawid. A., Raczyński P., Gburski Z. Depolarised Rayleigh light scattering in argon layer confined between graphite plains: MD simulation // Mol. Phys.-2014.-112.-P.1645–1650.*