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Dissipative particle dynamics: Effects of thermostating schemes on nano-colloid electrophoresis

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**\*Highlights (for review)**

- A full explicit tri-dimensional model is developed for electrophoresis.
- Electrophoresis is studied in non-linear regime.
- Code verifications is performed via comparison with numerical Poisson-Boltzmann simulation
- The Lowe-Andersen is found to be the best thermostat for temperature control in electrophoresis.

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