

Requested Feedback

- The current computational model will include a dipole interaction between particles as the leading order term and a second order term using the Lennard-Jones potential. Do you think that LJ potential is needed? The dipole pair interaction provides a gross approximation for Weiss domains.
- HOOMD may not produce visible effects in terms of the lattice distortion, however it will spit out a field energy. Do you think that graphs of energy vs term as the lattice equilibrates and the 3D image of the initial lattice configuration are sufficient?
- As far as our 'big picture' goes, we want to show that it is possible to use Monte Carlo sampling to model the inverse piezoelectric effect. Our approach is basically to say that the initial pair energy is zero between all points, now after we apply an electric field to the system, the particles will strain in some way, and this pairwise energy will be nonzero. Do you feel like this energy is a good, albeit general, approximation to the inverse piezoelectric effect?
- What else should we include in our poster besides our computational model? Perhaps we could add some details about experimental procedures regarding the piezoelectric effect, consider we work on SAW transducers in our lab?
- If this were for a graduate project, what types of critical questions would you ask about our simulation? (Note: We probably don't have answers, but fun to think about.)
- Do you personally find the work we are doing interesting, or would our poster be something that you might just stop by and say 'oh neat' at, and what are some things we could do to improve upon its appeal?