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Rasmus Christensen[1], Søren S. Sørensen[1], Han Liu[2], Kevin Li[2], Mathieu Bauchy[2], Morten M. Smedskjaer[1]
[1] *Department of Chemistry and Bioscience, Aalborg University, Aalborg, Denmark*
[2] *Department of Civil and Environmental Engineering, University of California, Los Angeles, USA*

We present a new method based on particle swarm optimization (PSO) for parameterization of interatomic potentials. Using glassy silica as a case study, we parameterize two interatomic potentials based on structural features obtained from ab initio simulations and experimental neutron diffraction data.

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