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Poiseuille flow of dense non-colloidal suspensions: the role of intergranular and nonlocal stresses in particle migration

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Highlights

- Numerical study based on a recently developed two-phase continuum model.
- Accurate prediction of particle migration due to normal viscous stresses.
- Good agreement with experimental measurements.
- Intergranular stresses impede particle migration at high concentrations.
- Nonlocal effects tend to smoothen concentration gradients.

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