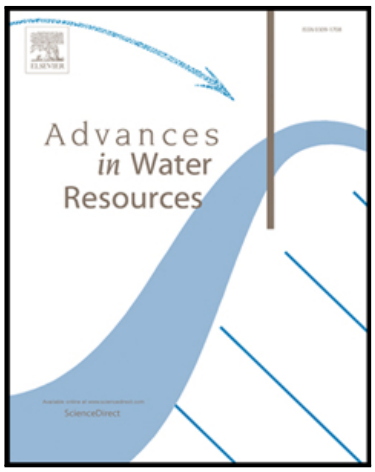

Image-based relative permeability upscaling from the pore scale

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Highlights

- Microporosity has an impact on relative permeability functions.
- The error of neglecting microporosity could be more than 90% even for $S_{w,micro} > 0.9$.
- The macroscopic lattice Boltzmann methods was applied successfully for upscaling from pore scale.
- Darcy's equation is coupled with Stokes equations in upscaling process.