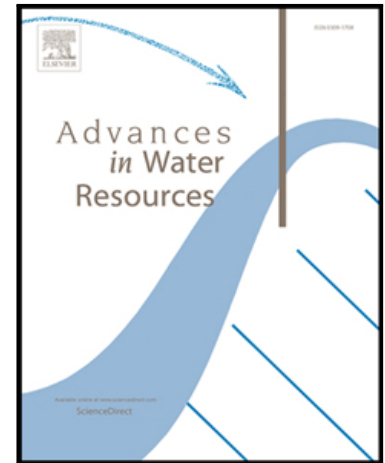


## Accepted Manuscript

Optimisation of image quality and acquisition time for lab-based X-ray microtomography using an iterative reconstruction algorithm

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**Highlights:**

- Both dry scan images and images with multiple fluid phases were tested using a new iterative reconstruction algorithm.
- A factor-of-four reduction in acquisition time was achieved without any measurable decrease in image quality by use of the iterative reconstruction.
- This decrease in acquisition time allows many potential dynamic/*in situ* processes to be imaged by a lab-based system.

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