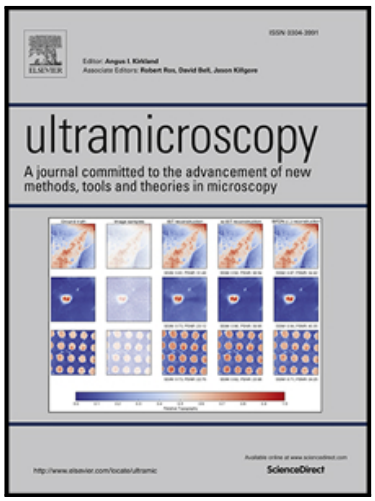

Relative merits and limiting factors for x-ray and electron microscopy of thick, hydrated organic materials

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Highlights

- A consistent analytical model is put forward for image contrast and required exposure in x-ray and electron microscopy.
- The model includes the use of phase contrast, zero-loss filters, and the complications of inelastic and plural elastic scattering.
- This model shows how the relative merits of x-ray and electron microscopy depend on resolution and overall specimen thickness.
- Limitations due to radiation damage are considered.