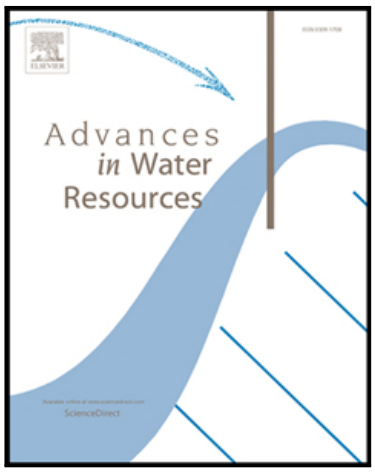

Modelling capillary hysteresis effects on preferential flow through melting and cold layered snowpacks

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Highlights:

- A 2D model simulating preferential flow paths in subfreezing snow on slopes is proposed.
- Capillary hysteresis and water entry pressure affect preferential flow path characteristics.
- Preferential flow into cold layered snowpacks forms ice layers, which were modelled realistically.