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# Mitigating radon backgrounds in dark matter searches

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Radon emanation from materials presents a major background to dark matter searches. Presenting the dual-detector radon emanation system operating at Boulby Underground Laboratory, which uses two 80L electrostatic alpha detectors. By incorporating a radon concentration line, this will enhance its sensitivity of  $^{222}\text{Rn}$  to below 0.1 mBq, providing more accuracy at characterising radioactive emissions from materials to build a background model.

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