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## Measurement of the underground argon radiopurity for Dark Matter direct searches

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A major worldwide effort is underway to procure the radiopure argon needed for DarkSide-20k (DS-20k), the first large scale detector of the new Global Argon Dark Matter Collaboration. The Urania project will extract and purify underground argon (UAr) from CO<sub>2</sub> wells in the USA at a production rate of about 300 kg/day. Additional chemical purification of the UAr will be required prior to its use in the DS-20k LAr-TPC. The Aria project will purify UAr using a cryogenic distillation column (Seruci-I), located in Sardinia (Italy). Assessing the UAr purity in terms of Ar-39 is crucial for the physics program of the DarkSide-20k experiment. DArT is a small (1 litre) radiopure chamber that will measure the Ar-39 depletion factor in the UAr. The detector will be immersed in the active liquid Ar volume of ArDM (LSC, Spain), which will act as a veto for gammas from the detector materials and the surrounding rock. In this talk, I will review the status and prospects of the UAr projects for DarkSide-20k.

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