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Commodity	Arsenic (As)	Data source
Significance for the EU (2023)	<i>Critical, not strategic</i>	
Uses of the commodity	<p><u>Main uses:</u> <i>GaAs and InGaAs are used in integrated circuits and semiconductors for various electronic applications such as computers, telecom equipment, biomedical, photovoltaics and infrared technologies. The main use of arsenic in the EU is in zinc production where it is used to remove impurities during electrowinning. It is also used as a de-coloration agent in special glass production.</i></p> <p><i>Arsenic is used globally in herbicides, insecticides, and wood preservatives, although such usage is restricted in the EU for consumer and environmental protection.</i></p> <p><u>Minor uses:</u> <i>Chemicals and alloys.</i></p> <p><u>Future uses:</u> <i>Increased use in semiconductors, photovoltaics, and other GaAs devices.</i></p>	SCREEN2 (2023), USGS (2023)
Resources and potential in the Nordic countries	<p><u>Finland:</u> <i>2,450 t As in one deposit; in addition, As as a minor potential commodity in several VMS and orogenic gold deposits and occurrences.</i></p> <p><u>Greenland:</u> <i>Resource potential unknown, considered limited. Occurrences of hydrothermal As mineralisation reported from Central East Greenland Caledonides.</i></p> <p><u>Sweden:</u> <i>Arsenic is present as a component (potential byproduct) in several gold- and base metal deposits in the Skellefte district and Bergslagen in Sweden, but quantitative data on tonnages and grades are limited.</i></p> <p><u>Norway:</u> <i>Arsenic was mined in the late 19th and early 20th century and is present in several gold-, cobalt and base metal deposits in Norway. However, quantitative data on tonnages and grades are limited.</i></p>	Stendal & Ghisler (1984), Rosa et al. (2023)
Anthropogenic resources and potential in Nordic countries	<i>Smelter flue dust, residues and tailings from processing of gold, copper and lead deposits.</i>	
Main deposit types in the Nordic countries	<i>Epithermal (high-sulphidation) and orogenic gold deposits with arsenopyrite, cobaltite, and/or gersdorffite; some VMS-type deposits.</i>	Eilu (2012)
Main global deposit types	<i>Gold and copper-gold ores. Cobalt-arsenide ores.</i>	USGS (2023)

Critical and Strategic Metals and Minerals in Nordic countries
Raw Materials for the 21st Century

Global production (2022)	<i>61,000 t (arsenic trioxide)</i>	USGS (2023)
Nordic production (2022)	<i>No Nordic production</i>	
Main producing countries (2022)	<i>Peru 45 %, China 40 %, Morocco 11 % (arsenic trioxide).</i>	USGS (2023)
Technological challenges in production	<i>Generally, well-established technology. High- and ultra-purity As production demand multistage, clean processing environment. All As production also demands stringent environmental and occupational health safeguarding.</i>	
Recycling	<u>Present:</u> <i>Negligible recycling, but some arsenic is recovered from industrial scrap during GaAs semiconductor manufacturing.</i> <u>Future:</u> <i>Smelter and coal flue dust and ore processing residues.</i>	SCRREEN2 (2023), USGS (2023)

References

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