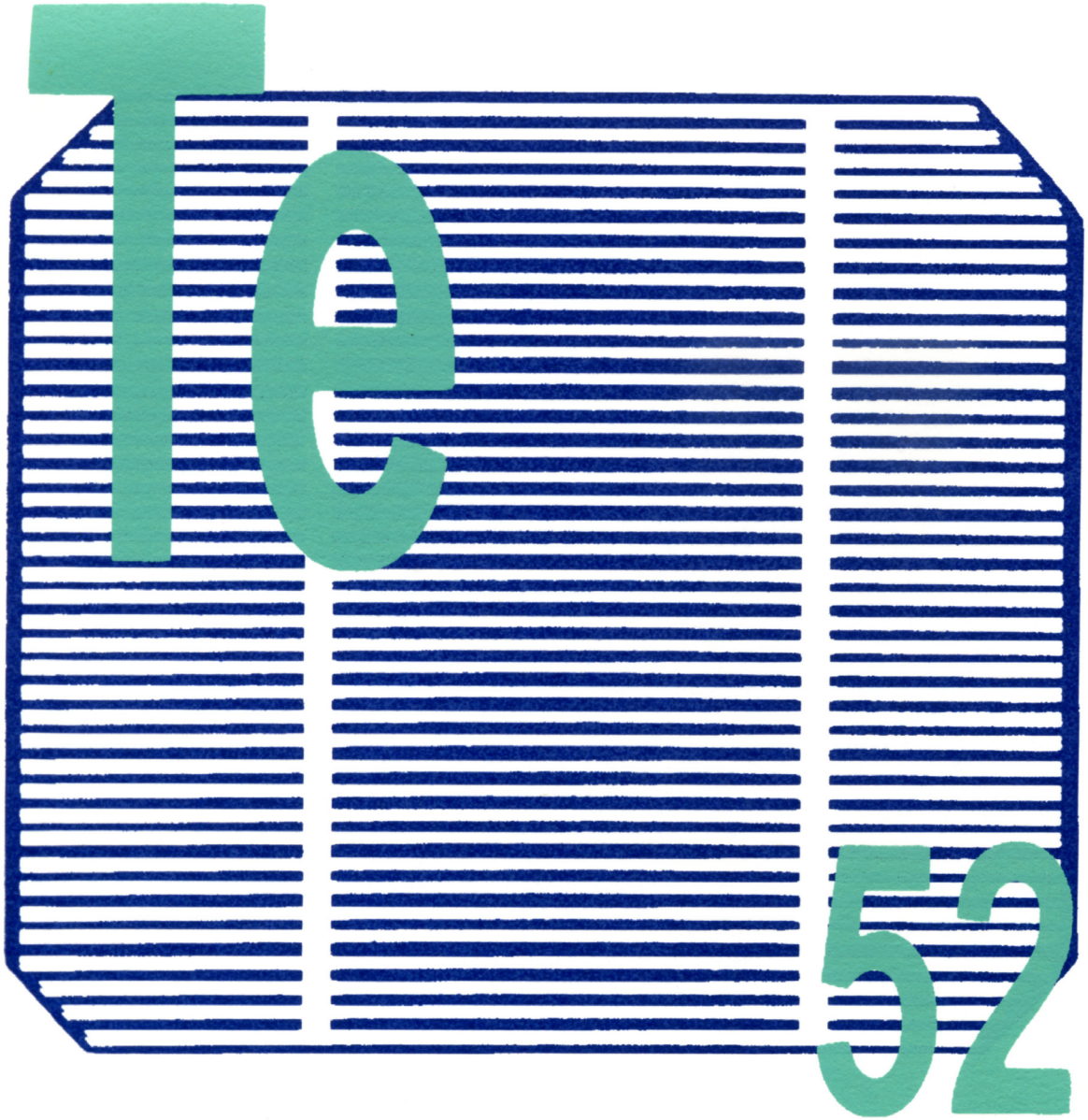

TELLURIUM

Element Symbol: Te
Atomic Number: 52

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TELLURIUM

Element symbol: Te
Atomic number: 52

Tellurium is atomic number 52 and is group 16 with oxygen, sulfur, selenium and polonium. Tellurium is one of the rarest elements in the Earth's crusts, with its abundance being similar to that of platinum (~1 µg/kg).

Tellurium was discovered in 1782 by Franz J. Müller when he was looking at gold-containing ores in Transylvania. Supposedly, a pure sample of antimony had been obtained from one of the ores he collected - aurum paradoxum, However, experiments eliminated the presence of antimony, bismuth or any alloy of both, so he called his new element "metallum problematicum". His discoveries were published in an obscure journal, Physikalischen Arbeiten der einträchtigen Freunde in Wien, of which only two volumes were issued. The title of his work was equally obscure: "An Investigation of the Supposed Native Antimony from the Mariahilf Mine in the Facebaj Mountains Near Zalatna." In 1798, Martin H. Klaproth re-examined the "problematical metal" and named it tellurium after the Latin name for earth – Tellus.

Tellurium is present in several gold deposits as calaverite ($AuTe_2$). During the 1890s Kalgoorlie gold rush, a "fool's gold" ore was regularly discarded in the search for pure gold. This waste ore was used to fill potholes and to make the footpaths. It was discovered several years later that this was calaverite and lead to a minor rush to excavate the streets paved with gold.

Tellurium compounds in microgram amounts occur fairly widely in plants (for example, onions, peas, and tea leaves), and larger quantities (31–73 µg per g) are found in garlic buds.

Tellurium is used in a number of alloys. Tellurium is also known for its use in the semiconductor and electronic industry.

Other uses of tellurium include the vulcanisation of rubber to improve hear resistance and in tellurite agar used to identify the pathogen responsible for diphtheria.

Provided by the element sponsor sponsor Vicki Gardiner

ARTISTS DESCRIPTION

This is a screen print.

This element in the form of cadmium telluride is used in the making of solar cells.

The print is simply of a solar cell.

I develop screen prints using old photos to represent my ideas. Once I have decided on what to print, every colour is printed separately so the fewer the colours the better.

MARGARET MCATEER