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The invention relates to the field of material production technology for electronic engineering, namely the field of producing materials in the form of single crystals and can be used in the production of niobium or tantalum arsenide single crystals.
The process for producing tantalum or niobium arsenide single crystals by the chemical transport reaction method in a closed volume with a temperature gradient and using iodine as a transport agent, in which pieces of tantalum or niobium, arsenic and iodine films are loaded into ampoules and placed in a furnace with three temperature zones of 610°C, 850°C and 800°C, the 850°C zone is located in the middle of the ampoule, arsenic - in the zone with the temperature of 610°C, tantalum or niobium - in the zone with the temperature of 800°C, and the quantity of the transport agent is selected depending on the pressure limit of the ampoule selected for the synthesis.

Claims: 2
Fig.: 3