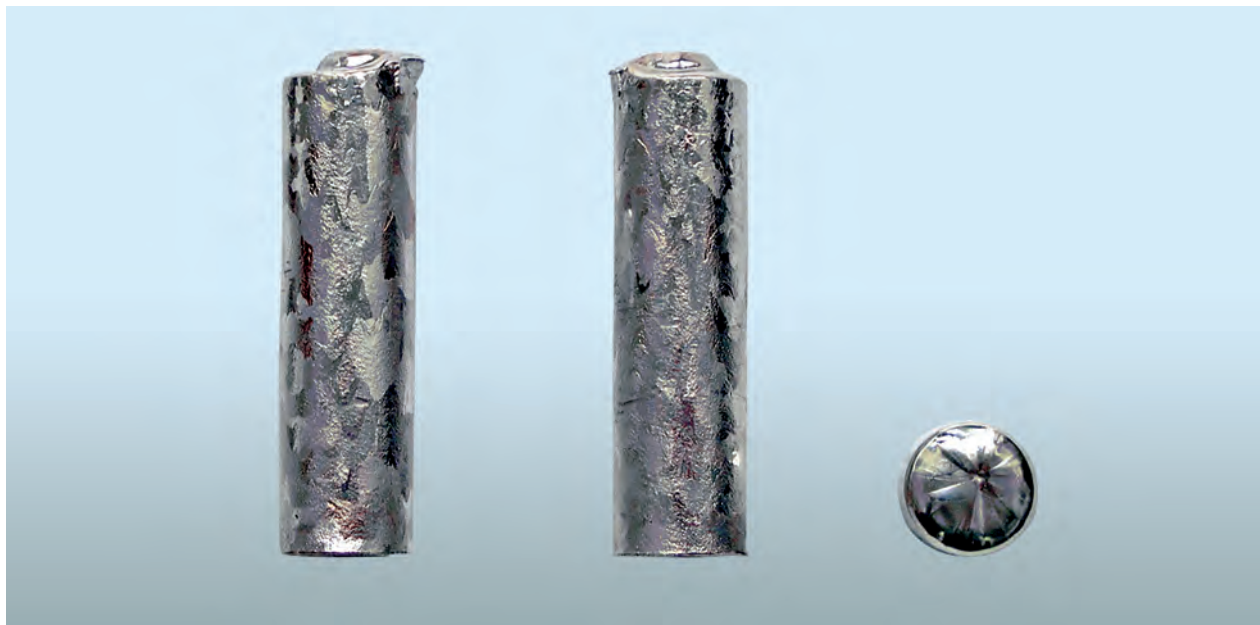


## DEVICE FOR DEEP PURIFICATION OF Cd, Zn, AND Te ISOTOPES



Cd-106 isotope

### Areas of Application

The unit is designed for the deep purification of enriched isotopes  $^{106}\text{Cd}$ ,  $^{116}\text{Cd}$ ,  $^{64}\text{Zn}$ ,  $^{128}\text{Te}$ ,  $^{130}\text{Te}$ , and others and for the creation of low-background scintillation crystals based on them to study the properties of neutrinos and the weak interaction and to search for effects beyond the standard model of elementary particles

### Specification

Weight of original charge, kg	0.25
Product yield, % of original charge	96
Yield capacity, g/hour	50–80
Operating temperature, °C	350–650
Fineness, %	99.9–99.99...
	>99.999–99.9999

### Advantages

The equipment is unique in Ukraine. High efficiency of the refining process; high product yield; high purification efficiency (>hundred-fold); minimum non-recoverable losses (<1%)

### Stage of Development.

#### Suggestions for Commercialization

IRL6, TRL6  
Pure metals manufactured, upon request

### IPR Protection

IPR3

### Contact Information

*Sergii G. Pugach*, National Science Center “Kharkov Institute of Physics and Technology”;  
+38 057 335 68 43, +38 057 349 10 49, e-mail: [pugach@kipt.kharkov.ua](mailto:pugach@kipt.kharkov.ua)