



V. Ye. Lashkaryov Institute of
Semiconductor Physics of NAS of Ukraine,
41 Nauki Ave., Kyiv, Ukraine



RECOVERY OF GERMANIUM OPTICAL ELEMENTS FOR INFRARED TECHNIQUE DEVICES

Halyna Malanych, Grygoriy Pekar, Oleksandr Synhaivs'kyi,
Vasyl Tomashyk, Mykhailo Lokshyn

e-mail: galya.malanich@gmail.com



Input control of remains of
a destroyed germanium
optical element

Preliminary purification of the remains of the optical element in a magnetic catcher to remove the metal fragments as well as in the ultrasonic bath for removing the remains of organic glues and other contaminations

Removal of the anti-reflective coating from the surface of optical element fragments and residues of coating material from the near-surface layer of these fragments using chemical methods

Cleaning of optical element residues by physical methods, namely, by their re-melting in a forevacuum and using zone recrystallization

Growing an optical germanium crystal from the obtained material

Production of a new optical
element to replace the
destroyed one



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