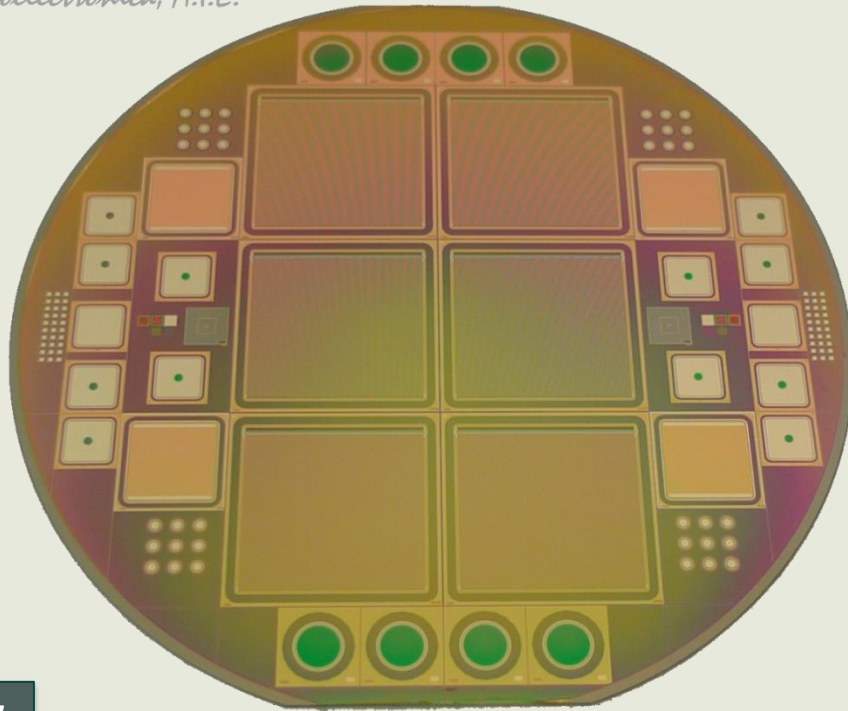




Custom Detectors



D+T Microelectrónica, A.I.E.



OVERVIEW

Alibava Systems team has a long experience in designing, fabricating and testing silicon radiation detectors in association with D+T Microelectronics. Our team has developed and mastered a variety of sensor technologies. Examples of our team's work are being used at internationally recognised institutions such as **CERN** and **ALBA Synchrotron**.

Our **flexibility** is what makes us different. Alibava Systems can use different technologies, change the design and adapt the fabrication process to obtain the best detectors **for your specific application**.

We design and fabricate the detectors completely based on your specifications. Change materials, doping profiles, dimensions, patterns... A complete tailored design can be made for you and we will always provide detectors of the highest quality.

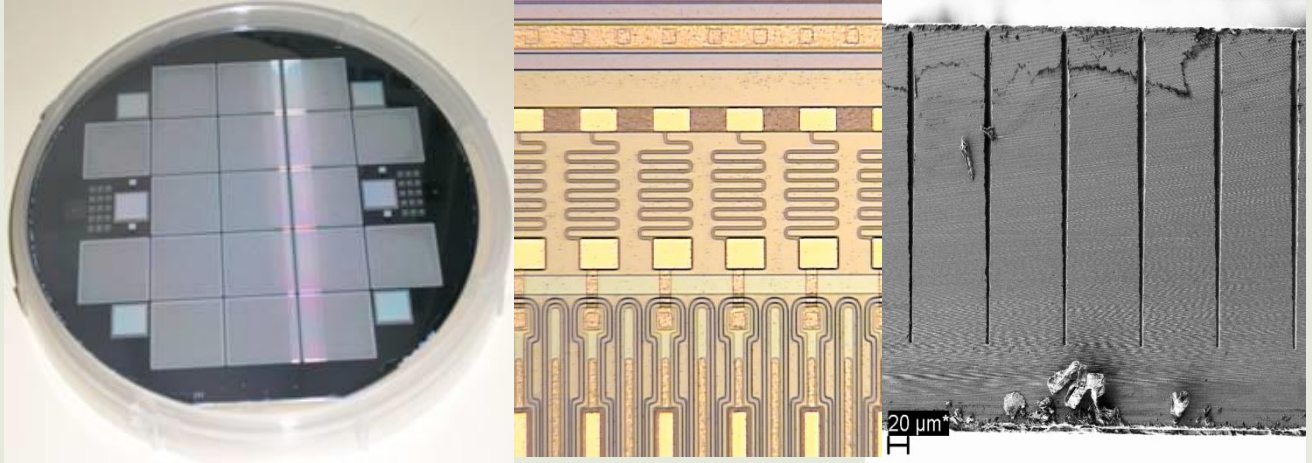
GENERAL FEATURES

- SOI wafers thickness 10 μ m to 200 μ m
- Standard wafers thickness 200 μ m to 1.5mm
- Double sided detectors thickness 200 μ m to 1.5mm
- Double side wire bonding
- Junction entrance window > 50 nm thick (standard 500nm)
- Metal thickness > 5nm
- Double-metal technology available
- Very low reverse current (<1nA/cm²/100 μ m)
- Geometries: Strips, pixels and pads.
- Minimum pitch 5 μ m
- UBM (Under Bump Metallization) process available



Custom Detectors

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Solutions with already developed technologies that we **customize to meet your needs**: pixel, micro-strips, 3D, neutron...

	Substrate	p-isolation	Double-metal	Thickness(um)	Double side Limited by thickness
DC detectors for Nuclear applications	N	-	Yes	10-1000	Yes (>200um)
DC detectors for HEP	N/P	p-stop/p-spray	Yes	10-1000	Yes (>200um)
AC microstrips detectors for HEP	N/P	p-stop	Yes	10-1000	Yes (>200um)
Low Gain Avalanche Detectors	P	p-stop/p-spray	Yes	10-1000	Yes (>200um)
3D Double Side	N/P	p-stop	Yes	200-300	Yes (>200um)
3D Ultrathin	N	-	Yes	5-300	No
Microdosimeters 3D	N	-	No	5-300	No
Neutron detectors	N/P	p-stop/p-spray	Yes	Depends on type	Depends on type

Add a converter layer for neutrons detection, change layer thickness, union depth, materials... or propose a whole new solution!

We can design, fabricate and characterize the best detectors **for your application.**

Full Value Chain

- Design/layout
- Simulation
- Fabrication
- Packaging
- Testing
- Readout electronics

