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Ongoing activities at CiS

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The CiS research institute is engaged in developments of radiation detector technologies on several different fields. Current projects are dealing e.g. with active edge sensors, large area thinned sensors, sensor-chip packaging technologies and defect engineering.
An active edge sensor run is finished and evaluated. Three side wall doping methods have been tested in combination with two wafer thicknesses as well as with n- and p-substrates. The electrical measurements show the functionality of sensors with inactive edge widths down to 50µm.
For large area sensors, the need for smaller thicknesses can be approached by etching cavities to the sensors back side while guaranteeing stability on wafer level by thick frames at the edges. A single sided n-in-p pixel technology is currently transferred to 6"wafer size with membranes up to 4x4cm² and target thicknesses of 50, 100 and 150µm. The technology is furthermore extended to a double sided process which will enable double sided thin sensors.

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