Upgrading of the Borowiec SLR station

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Main goals

Better efficiency
Improvement of the single shot precision and accuracy of the satellite passes
Observations of the high satellites
Participation in T2L2
Modernization of the optical parts of the telescope:

New cover of the main and secondary mirrors

Installation of the new dielectric mirrors in Coude path

Tests of two transmitting telescopes 10 cm and 20 cm

New optical elements in receiving part (interference filter, neutral filters, collimation lenses, dielectric mirror, spatial filter)

Installation of the sensitive CCD camera for control of the laser beam position, satellites and stars by the main mirror
<table>
<thead>
<tr>
<th>Parameter</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Average Current Gain at -3600V:</td>
<td>$1.5 \times 10^6$</td>
</tr>
<tr>
<td>Average Dark Current:</td>
<td>0.33 nA</td>
</tr>
<tr>
<td>Quantum Efficiency at 532 nm:</td>
<td>30%</td>
</tr>
<tr>
<td>Rise Time:</td>
<td>182 ps</td>
</tr>
<tr>
<td>Transit Time Spread:</td>
<td>110 ps</td>
</tr>
<tr>
<td>Gate Rise Time:</td>
<td>687 ps</td>
</tr>
<tr>
<td>Max. voltage supply:</td>
<td>-4200V</td>
</tr>
<tr>
<td>Ambient Temperature in Operation:</td>
<td>-50  +50 ºC</td>
</tr>
</tbody>
</table>
Tests two transmitting telescopes – high satellites
Discriminator level for stop signal
Indoor calibration
Installation event timer
Software CRD
Participation in T2L2 – calibrations delay lines
kHz laser?