

QE Measurement in Laboratories

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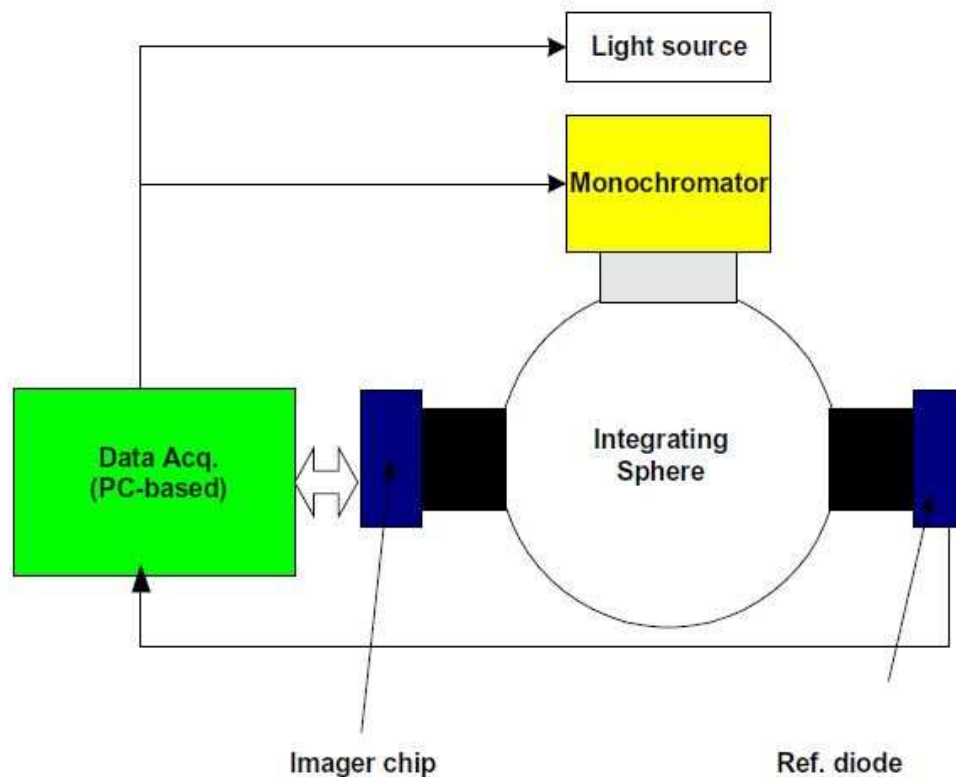
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QE Measurement Schematic

MEASUREMENT SET-UP

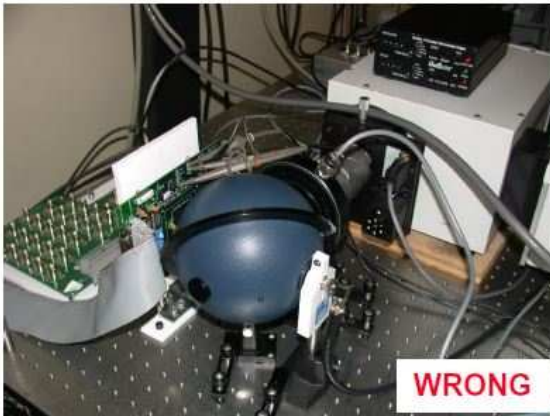


Metrics measured

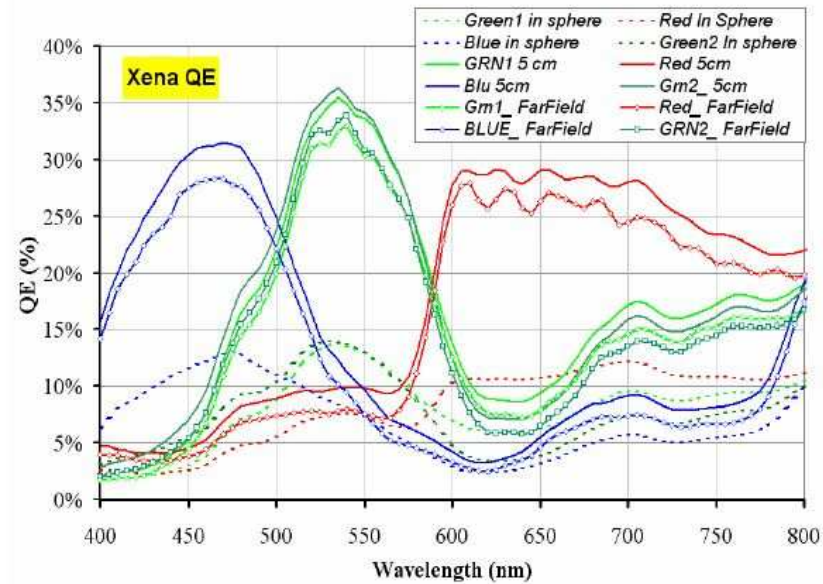
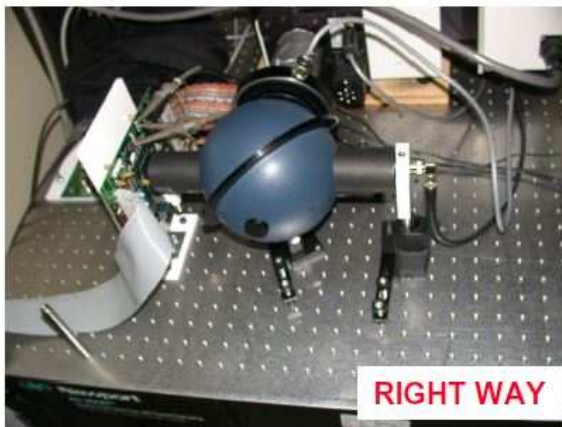
- Responsivity
- Quantum Efficiency
- Conversion Gain
- Dark Current
- Linearity
- Full-well & Saturation
- Flat-field
- Noise
- Fixed pattern noise
- Bias sensitivity

QE measurement Lab Setup

MEASUREMENT SET-UP & RESPONSIVITY



- “Stand-off” should have absorbing surface
- Reference diode calibration: stand-off distance
 - Longer the distance, less is the light
 - Longer the distance, less is the error in positioning
- Be careful about recess in the reference diode
- At 5 cm – $F\# \sim 2$



Source: Pain UCLA 2007