# greateyes
### EXPAND YOUR VISION
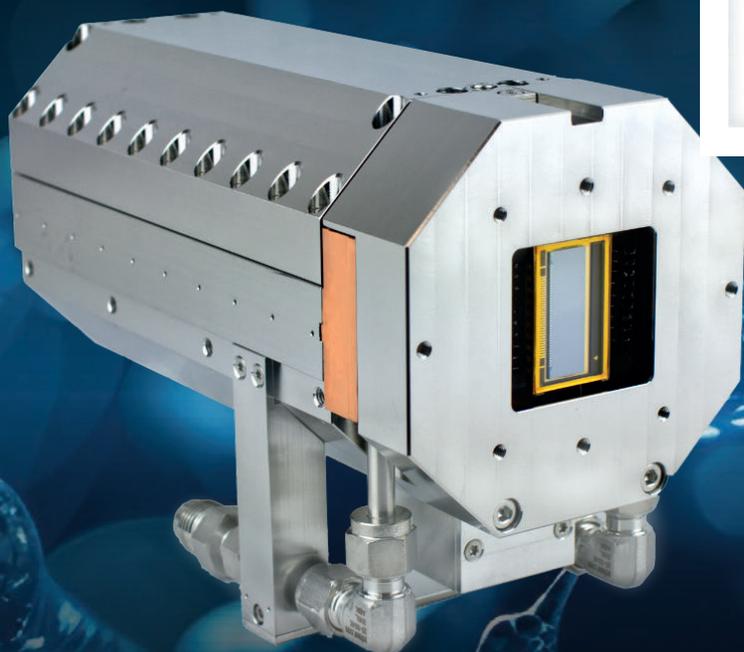
**CAMERA SERIES FOR IMAGING & SPECTROSCOPY**

# LOTTEi / LOTTEs

## Innovative in-vacuum camera series with lowest outgassing, deepest cooling, and ultra low noise performance



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Tel. 650-550-8618

VUV

EUV

SXR

HXR

## KEY SPECIFICATIONS

Ultra-high Vacuum Compatible Encapsulated Design

High Quantum Efficiency

Ultra Deep Cooling to -100°C

18-bit Dynamic Range

Lowest Outgassing

50 kHz - 5 MHz Readout

Multi-port Readout

GigE Interface

## TYPICAL APPLICATIONS

Soft X-ray Spectroscopy

Plasma Emission Spectroscopy

High Harmonic Generation Spectroscopy

NEXAFS Spectroscopy

Resonant Inelastic X-ray Scattering

**www.greateyes.de**

# LOTTE

## Wearing the crown for lowest outgassing rate

Queen Sophia Charlotte - nicknamed 'LOTTE' - layed the foundation stone of Berlin's most famous place 'Schloss Charlottenburg'

## FEATURES & BENEFITS

**Ultra deep TE cooling down to -100°C**
lowest dark current for better detection limit

**GigE data interface**
local or remote network operation – your choice!

**Fast readout speeds up to 5 MHz**
fast frame rates paired with low-noise electronics

**UHV Compatibility**
encapsulated design delivers the lowest outgassing rate

**High QE up to 98%**
very sensitive sensors for low light applications

**Flexible software options**
camera software and SDKs available

## LOTTE SERIES

**LOTTE** in-vacuum CCD camera can be submerged, operated and positioned freely inside a vacuum chamber.

Utilising scientific-grade back-illuminated CCD sensors for the detection of EUV, VUV, and X-ray signals, **LOTTE** is equipped with a novel and advanced cooling concept enabling detector temperatures as low as -100°C. It is furthermore driven by the most powerful and versatile true 18-bit electronic platform available for in-vacuum use. This guarantees ultra low noise performance.

One key feature that differentiates **LOTTE** from its nearest rivals is an innovative encapsulated stainless-steel housing, assuring extremely low outgassing at all times. The special design and unprecedented performance make the **LOTTE** a unique companion for demanding low-light scientific research applications.

**All LOTTE models are available in two versions**

**LOTTEs 1k128**

**LOTTEs 1k256**

**LOTTEs 2k512**

**LOTTEi 1k1k**

**LOTTEi 2k2k**

**LOTTEi 2k2k plus**

**LOTTEi 4k4k**

'rc' version

'sc' version