

# Hamamatsu's UV-spectrometer enables real time measurement of multiple parameters in water analysis

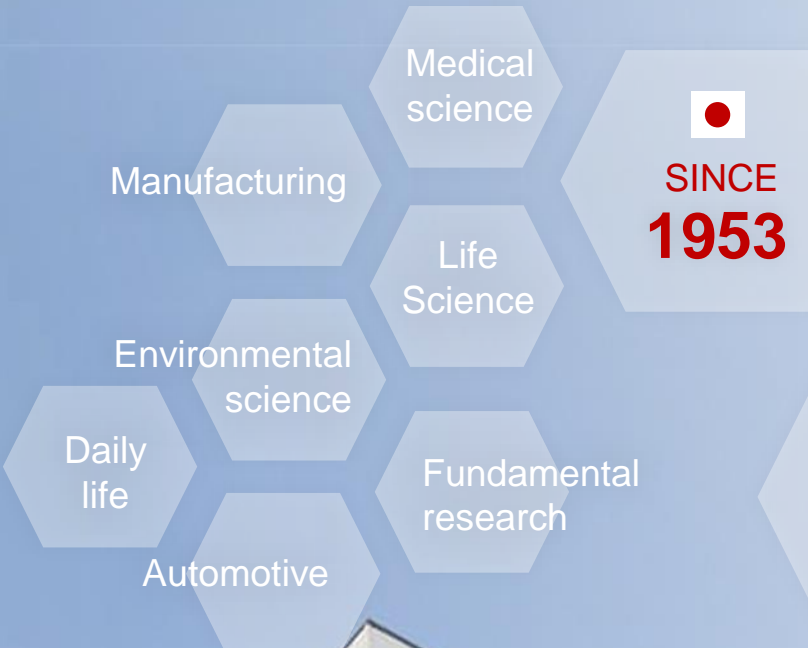
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**Gaetano Panagia**

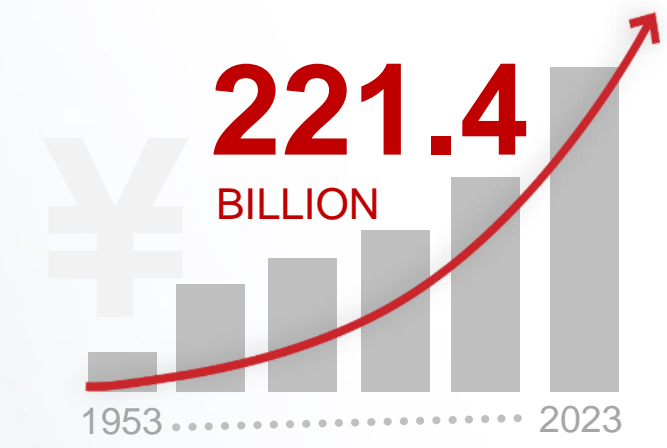
Technical Marketing Engineer


EPIC Members New Product Release, October 22<sup>nd</sup> 2024

# Hamamatsu Photonics



  
SINCE  
**1953**

  
  
**10**  
RESEARCH & PRODUCTION FACILITIES  
**5,795**  
EMPLOYEES  
**5.6%**  
R&D EXPENSE

**3** NOBEL PRIZE CONTRIBUTIONS 

  
**15.000** PRODUCTS  **2/3** CUSTOM SPECIFIC

\*Figures taken in 2023



# Water Quality Monitoring

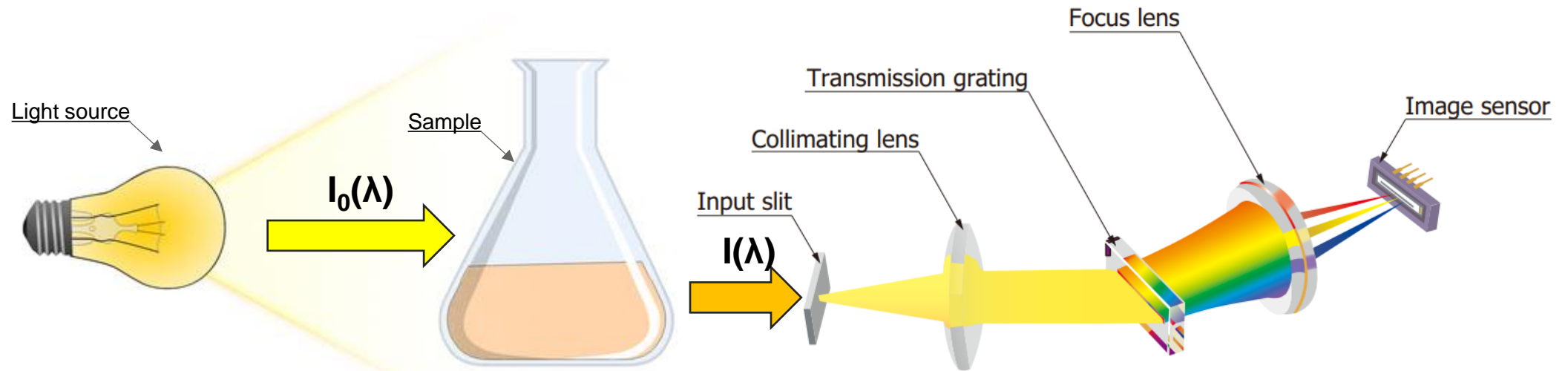


Wastewater monitoring



Drinking water monitoring

# Absorption Spectroscopy



Real time, On-site



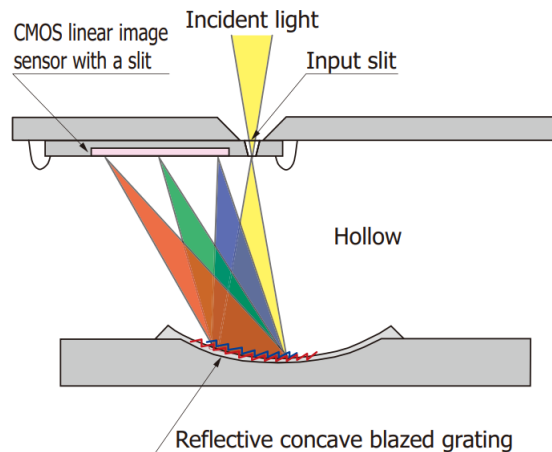
No filtration needed



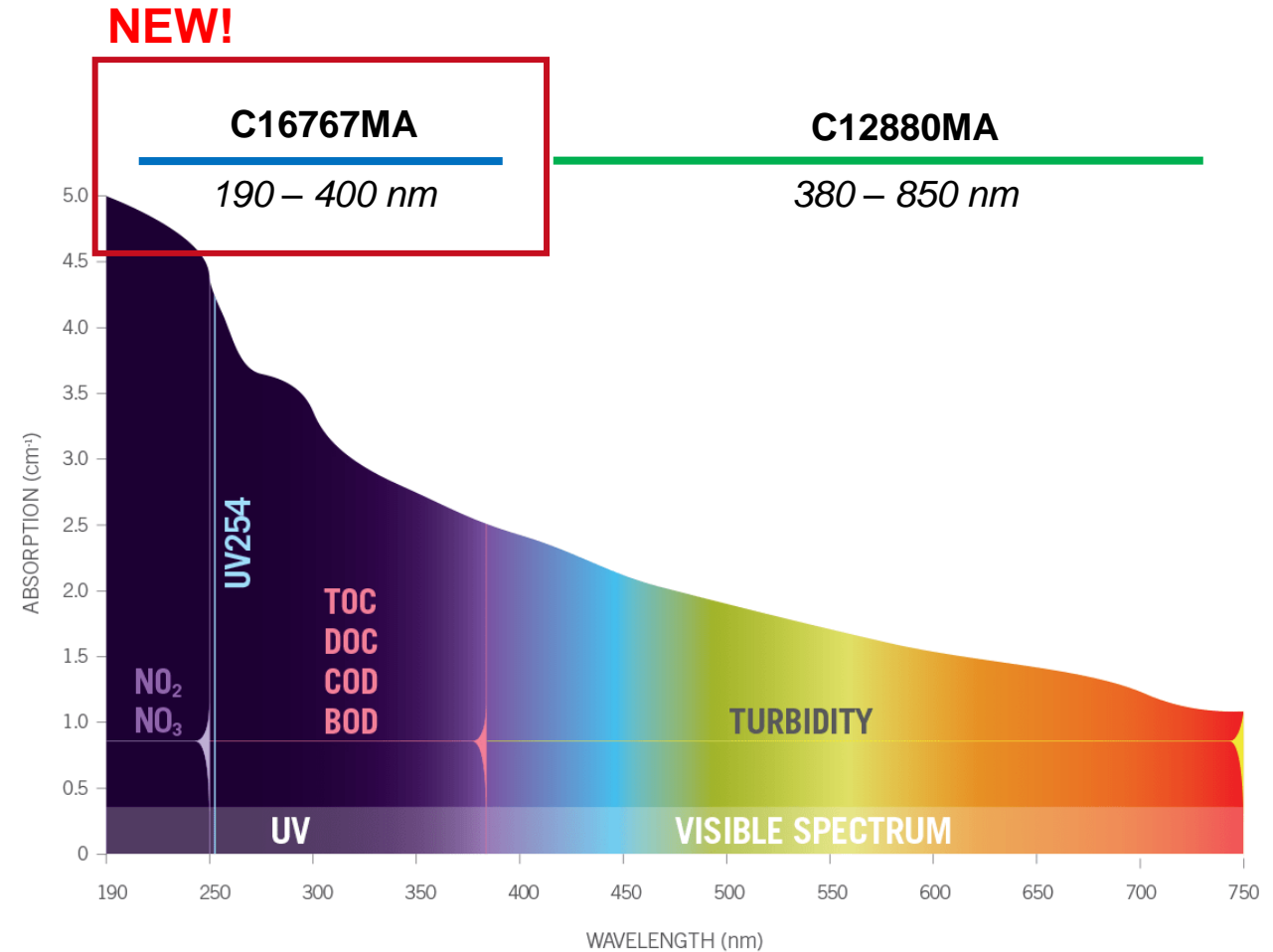
No polluting reagents



# Hamamatsu's miniaturized spectrometers



Hamamatsu's unique MEMS process



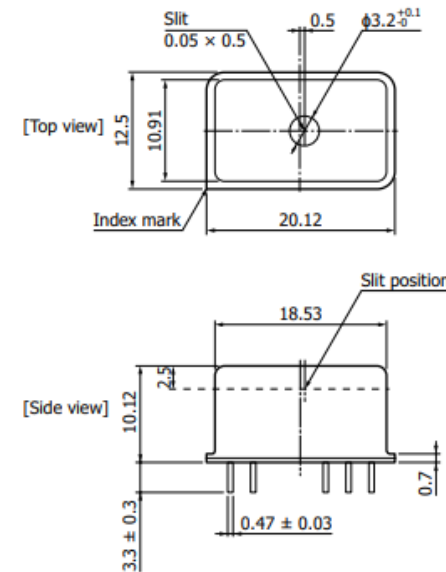
Absorption spectrum of liquid water  
From <https://realtechwater.com/blog-post/overview-i-uv-absorbance/>

# New Miniaturized UV-Spectrometer – C16767MA

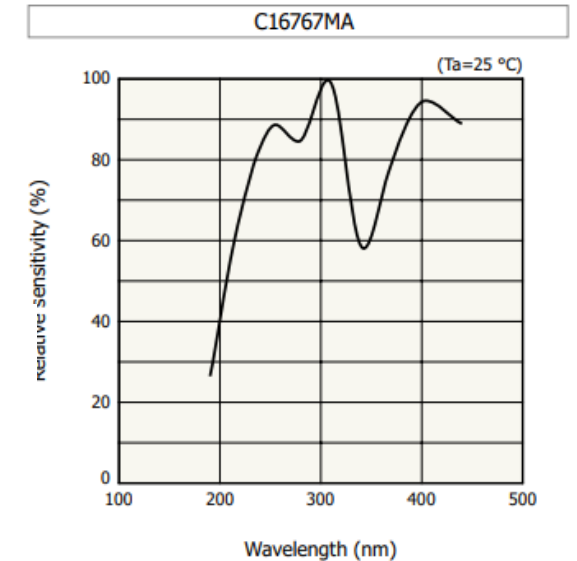
Ideal for real-time water quality analyzers

- Compact
- Spectral response range: 190 – 440 nm
- Spectral resolution: 5 nm (typ.)
- SNR: 291:1
- Dynamic Range: 5000
- Low power consumption
- Electronic shutter function for synchronization with light sources

## Dimensional outline (unit: mm, tolerance unless otherwise noted: $\pm 0.2$ )



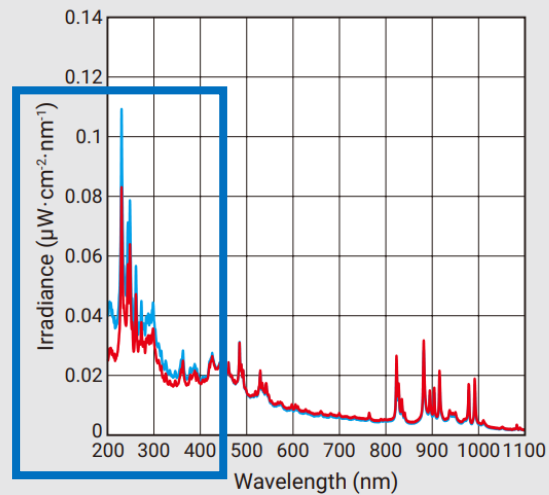
## Spectral response



## Xenon Flash lamps



■ Spectral distribution (Typ.)

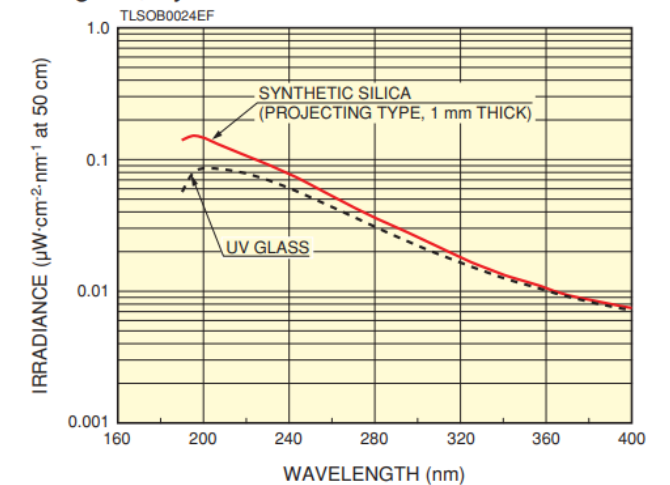


Window material  
 — UV glass (L13651-01)  
 — MgF<sub>2</sub> (L13651-01-3)

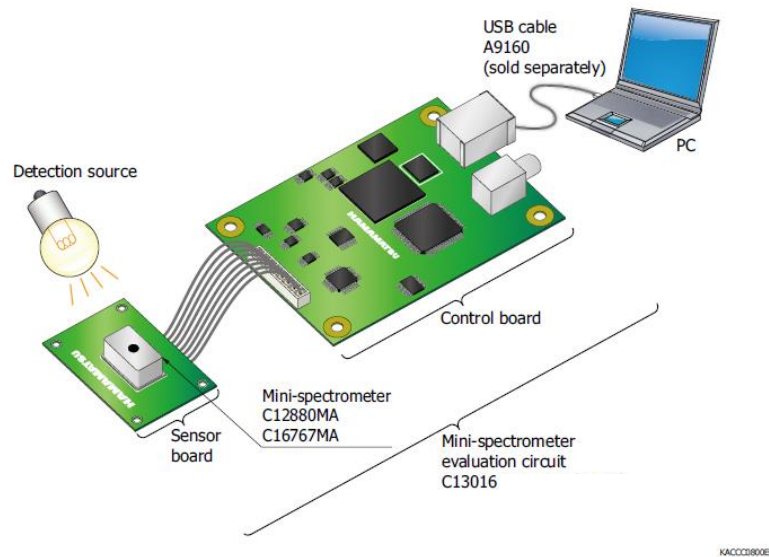
## Deuterium lamps



UV glass, Synthetic silica



## Evaluation board



# NEW Hamamatsu's Pilot Line

Partner with us to transform your photonics innovations into commercially viable solutions.



**One-stop-shop solution**  
helping you transform your innovation from concept to mass production



**Custom integration strategies**



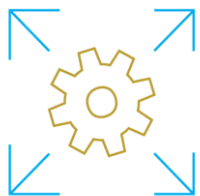
**Streamlined product development**  
with post-prod support and life cycle management



**Free feasibility consulting**



**Collaborative concept development**  
including Photon Hub Europe's collaboration



**Full-scale real production capabilities**



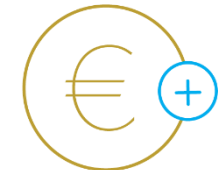
**Vertical integration**



**Intellectual property security**



**Risk mitigation**



**Access to extra funding**  
for EU companies only



[www.hamamatsu.com](http://www.hamamatsu.com)