

Photometric Analysis

Sensor	Advantages	Disadvantages	Example
UV spectrophotometers	+ Available in-line or off-line + Reliable	- Must be in solution (gas or liquid)	Presence of aromatics in organic compounds
IR	+ Available in-line or off-line + Reliable	- Must be in solution (gas or liquid)	Quantifying organic peroxides in lubricants using FTIR
Radiation	+ Highly selective + Very specific	- Lab use only - Too specific	Fluorescence spectrophotometers to detect specific proteins in cells
Turbidimeters	+ Ideal for solids in small concentration	- Prone to foul - Solids must be present	Detect pollutants in water (water quality)
Opacity	+ More accurate than turbidimeters	- Lack stability	Measures smoke density in chimney stacks