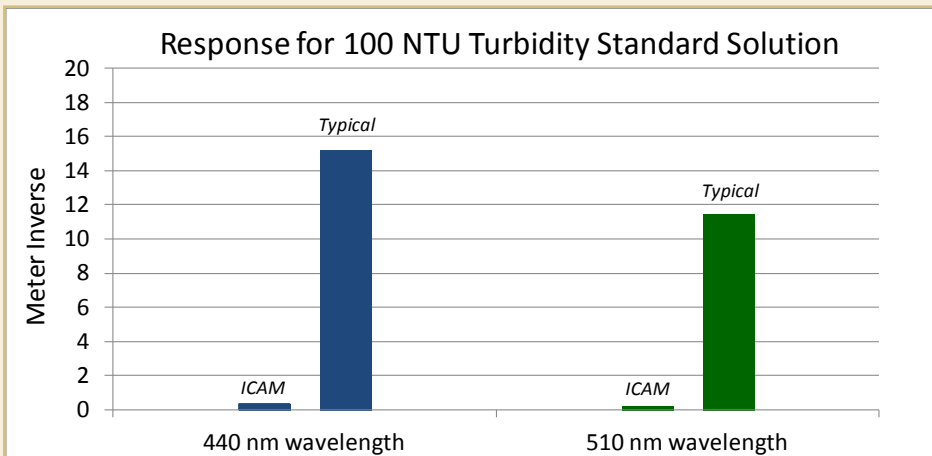


### Highlights of the ICAM

- 9 wavelengths – UV to Red
- Minimal to no scattering effects
- Detection range 0.001m<sup>-1</sup> to 15m<sup>-1</sup>
- Solid-state optics and electronics

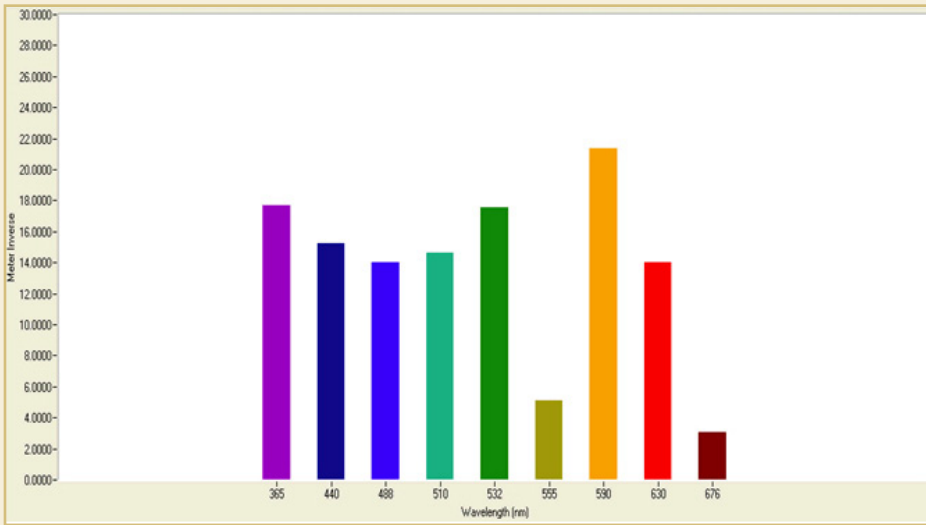
### Integrating Cavity Absorption Meter (ICAM)

ICAM, an *in situ* Integrating Cavity Absorption Meter, is factory configured with nine (9) wavelengths from UV (365nm) to Red (676nm) enabling absorption measurements over a wide spectrum. The patented integrating cavity design means that little or no scattering correction is needed. Built with LEDs and solid-state electronics, the ICAM provides excellent reliability and low power consumption in a relatively small package. Absorption can be measured from 0.001 m<sup>-1</sup> to a maximum of 15 m<sup>-1</sup>. Data can be collected at a maximum rate of six data lines per second using the ICAM GUI. Alternatively, data can be logged internally and output over RS-232 at a maximum rate of one data line per second. Each data line recorded will have a date/time stamp and may contain up to nine absorption values depending on the wavelengths selected.



ICAM's patented design allows researchers to measure absorption with very little or no interference from particle scattering maximizing measurement accuracy. Responses from the ICAM and a typical spectrophotometer are shown at both 440nm and 510nm using AMCO clear 100 NTU turbidity standard. At both wavelengths the interference measured from the turbid solution was, on average, 50x less for the ICAM.

Patent# RE41,682



ICAM displays meter inverse values, representing absorption coefficients, for 9 wavelengths spanning the light spectrum. These values are displayed as a histogram as illustrated in the figure to the left. As light absorption for a certain wavelength changes, a proportional change will be seen in the bar height at that specific wavelength. Using the ICAM GUI, these data can also be displayed as part of a spectral graph or as tabular data.

### ICAM Wavelengths

365, 440, 488, 510, 532, 555, 590, 630, 676

### ICAM Physical Specifications

Weight in Air	15 kg; 33 lbs
Length	78.7 cm; 31 in
Diameter	17.8 cm; 7 in
Material	
Pressure Hull	Titanium Type 2
Endcaps, Handles, Supports	Acetal Plastic
Temperature	-2 to 50 degrees C
Depth	0 to 200 meters
ICAM Total Volume	0.4L
Max Flow Rate	4.5L/min

### ICAM Electrical Specifications

Output	Digital (ASCII)
Interface	USB, RS-232
Data Output Rate Maximum	1/sec RS-232; 6/sec USB
Minimum Power Supply	8 - 30 volts; 25 watts

### Ordering Information

INSTRUMENT	PART NUMBER
ICAM	3200-000
ICAM ACCESSORIES	PART NUMBER
Submersible Battery, Charger & Cable	3200-600
0.6 meter Pigtail Cable	2200-170
10 meter Extender Cable	105-2595
25 meter Extender Cable	105-2596
50 meter Extender Cable	105-2597
Boosters (required for >10 m)	2200-900
Replacement Intake Copper Kit	3200-560
Replacement Cleaning Brush Assembly & Heads (3 each)	3200-555
Replacement Cleaning & Drying Heads (3 each)	3200-550
Replacement Interface Cable	3200-150

### Contact Us

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