

Sunburst Sensors

A brief overview



James Beck
Sunburst Sensors, LLC
Missoula, Montana USA

Sunburst Sensors, LLC

“Helping our customers measure change in the world’s waters.”

Strong history of commercialization

Dedication to helping researchers

Sunburst Sensors, LLC

Missoula, MT

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- **Founded in 1999 to sell SAMI-CO₂**
 - **NOPP grant in 2005**
 - **NOAA-SBIR, NOPP, NSF Grants**
 - **Selected in 2011 for OOI pH/CO₂**
 - **Participated in ACT – CO₂ and pH**
 - **Winners of Wendy Schmidt Ocean Health XPRIZE**
 - **10 employees / 480 miles from ocean**

Marquee Customers



U.S.

**NOAA - PMEL & AOML
OOI
EPA
USGS
NASA
Scripps
WHOI
MBARI
OSU-COAS**

Worldwide:

**Bergen
GEOMAR
ANIMATE
Baltic Sea Research
Korean Polar Institute
KIOST
IRD
IOS Canada
U Laval**

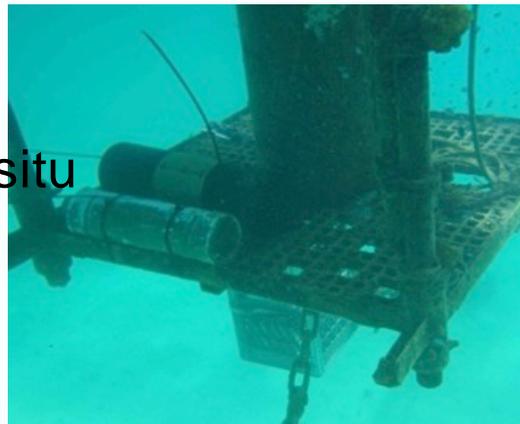


Sunburst Instruments

- SAMI-pH

- SAMI-CO₂

Moored, in-situ



- AFT-pH

- AFT-CO₂

- SuperCO₂

Shipboard, underway



Wendy Schmidt Ocean Health XPRIZE

- Two \$1M Purses – ‘Accuracy’ and ‘Affordability’
- Approximate 1 year from start to finish
- Bench and tank tests (Monterey Bay Aquarium Research Inst.)
- ‘Real world’ tank test (Seattle Aquarium)
- Deep sea test (Station Aloha - Hawaii)
- Opportunity to test our technology against others

Teams and their Entries

- 77 Intent to Compete, 24 Registered, 16 Tested
- 8 countries
- Backgrounds: Engineers, Oceanographers, Food Industry, Agriculture

- Colometric = 4
- ISFET = 6
- Optode = 2
- Electrochemical = 5
- Glass Electrode = 1
- Hybrid electrochemical/colormetric = 1

Phase 4 (Profiling - tSAMI) Sample Data

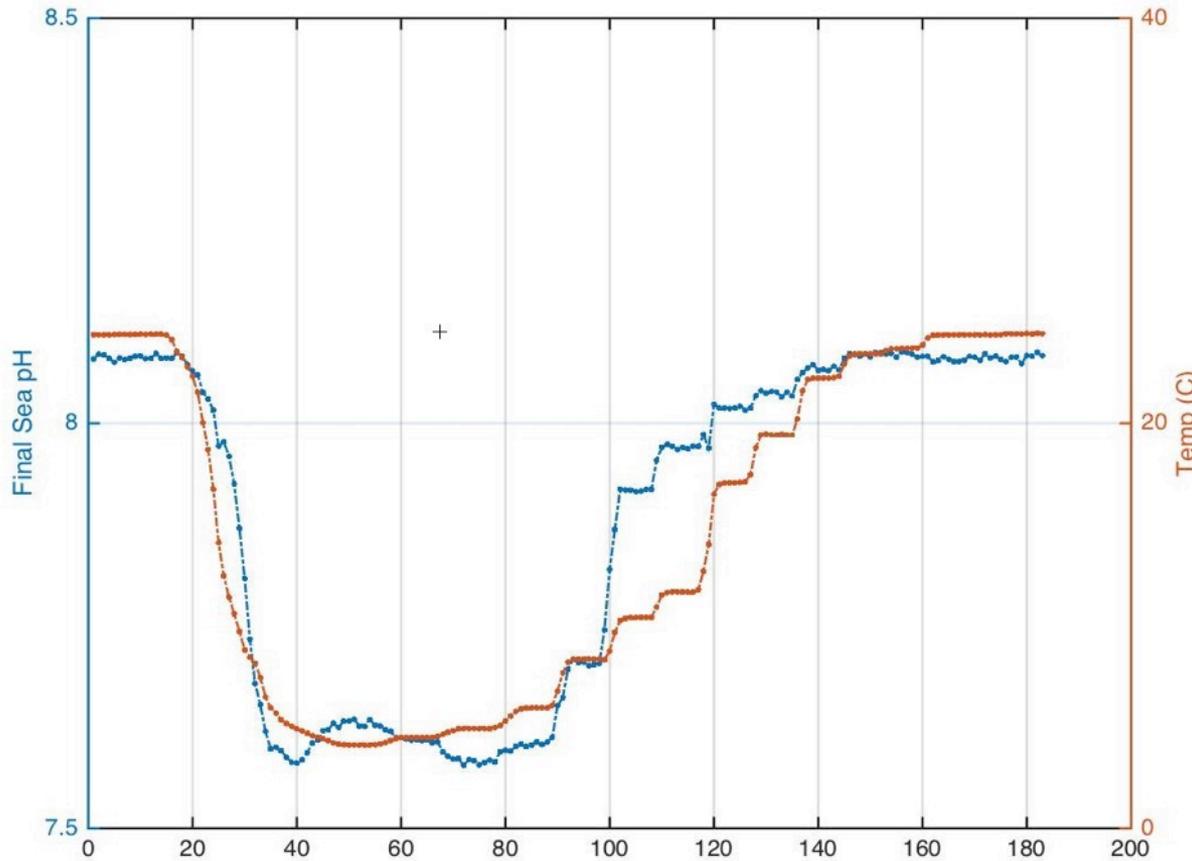


Table 4c: Phase 4 Accuracy and Precision Results

Sunburst 1	Accuracy (pH units)	Precision (pH units)
Cast 1	0.006	0.002
Cast 2	0.007	0.002
Cast 3	0.006	0.002
Cast 4	0.008	0.003
Cast 5	0.010	0.004
Cast 6	0.012	0.004
Cast 7	0.011	0.004
Cast 8	0.011	0.004
Cast 9	0.013	0.005

Winners – Accuracy and Affordability





WENDY SCHMIDT OCEAN HEALTH XPRIZE®



XPrize's \$2 million mission to protect the oceans



WENDY SCHMIDT
OCEAN HEALTH XPRIZE®

TECH
INSIDER



There's finally a good way to measure ocean health.



Popular Mechanics

The 2015 Popular Mechanics Breakthrough Awards

Indestructible drones, amazing robot hands, and more of the best ideas of the year.

The Monitors of the Sea

How two guys in Montana are changing the way we study oceans.

