

**2016 AGU Fall Meeting  
San Francisco, 12-16 December 2016**

**Invited speakers:**

Kevan Yamahara (MBARI, USA)  
Matt Mowlem (NOC, UK)

***Next generation biological and chemical sensors  
for ocean observations (Session OS019)***

**Session ID:** 13433

**Section/Focus Group:** Ocean Sciences

**Contributions are invited.** Abstract deadline is  
**Wednesday, 3 August 23:59 EDT**

**Session Description:**

Oceans regulate the Earth's climate and are integral to all known sources of life. Ocean processes are of biological, geological, chemical or physical nature, occurring at micro- to kilometer scales, from less than seconds to centuries, turning the understanding and the sustainable management of the ocean into a multi-scale and multi-disciplinary effort. Widespread observations remain generally difficult and costly in time and resources, especially for biological and chemical properties. New advances in sensors and methodologies offer significant improvements of observations, whether from advanced techniques such as hyperspectral fluorescence, lab-on-a-chip, animal tagging or new applications such as genetic sequencing. This session will address emerging sensor technologies and a new generation of advanced sensors and multifunctional sensor systems with emphasis on biological and chemical observations. New advances in physical and geological sensing are also welcome.

**Session Chairs:**

Oliver Zielinski (U Oldenburg, Germany)  
Francisco Chavez (MBARI, USA)  
Douglas P. Connelly (NOC, UK)  
Jay Pearlman (U Colorado, IEEE, USA)

For questions, contact Oliver Zielinski  
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