

Thornton LAB.

[Ocean perception and interaction]

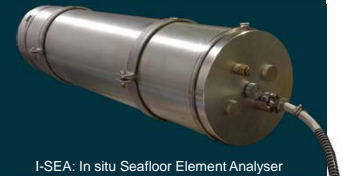
Underwater Technology Research Center



Laser-induced plasma as a mechanism for sensing

<http://underwater.iis.u-tokyo.ac.jp>

Applied sensing and perception of our ocean



I-SEA: In situ Seafloor Element Analyser

From sensing to perception

Not in seeking new landscapes but in having new eyes.
~ Marcel Proust



Underwater sensing is the raw material of how we perceive the ocean. By investigating fundamental physical mechanisms, such as the interaction of light and matter underwater and at high pressure, we aim to expand and enrich the tool set of techniques available for in situ measurements at sea.

- ◆ Laser-induced plasma as a mechanism for in situ multi-element chemical analysis of liquids and solids at sea
- ◆ Non-linear acoustic and 3D visual mapping for measurement of the volumetric distribution of manganese crusts
- ◆ High altitude 3D visual mapping and automatic classification of the seafloor
- ◆ In situ measurements of seafloor radioactivity

