

Morgan Cable, PhD

Dr. Morgan Cable is the Ocean Worlds Program Scientist for Formulation at the NASA Jet Propulsion Laboratory in Pasadena, California. She worked on the Cassini Mission as a Project Science Systems Engineer, and she is currently a Co-Investigator on the Dragonfly Mission to Saturn's moon Titan and a Collaborator on the Europa Clipper Mission.

Morgan's research focuses on organic and biomarker detection, through both in situ and remote sensing techniques. While earning her Ph.D. in Chemistry at Caltech, she designed receptor sites for the detection of bacterial spores, the toughest form of life. As a NASA Postdoctoral Fellow at JPL, Morgan developed novel protocols to analyze organic molecules such as amines and fatty acids using small, portable microfluidic sensors. Currently Dr. Cable performs laboratory experiments to study the unique organic chemistry of Titan, a moon of Saturn. She and colleagues were the first to discover a co-crystal, the equivalent of a 'hydrated mineral', made exclusively of organics that may exist on Titan's surface. This work has led to the inception of a new field, Titan mineralogy. Morgan also conducts field work in extreme environments on Earth, searching for life in places such as the Atacama Desert, the summit of Mt. Kilimanjaro and the lava fields in Iceland.

