Biofouling Analysis for Wave Energy Piston Design

CRADA 542 (PNNL 79192)

December 2021

Robert Cavagnaro
Nichole Sather

Triton Systems, Inc
Biofouling Analysis for Wave Energy Piston Design

CRADA 542 (PNNL 79192)

Abstract

December 2021

Robert Cavagnaro
Nichole Sather

Prepared for
the U.S. Department of Energy
under Contract DE-AC05-76RL01830

Pacific Northwest National Laboratory
Richland, Washington 99354
Abstract

Triton System's Wave Energy Converter (WEC) uses an oscillating water column approach to provide small scale power to ocean observing and navigational buoys. Biofouling and corrosion are a major concern for all ocean-deployed components, especially when mechanical motion is involved. Triton Systems will collaborate with PNNL to evaluate seals, materials, and component performance in a controlled biofouling test environment. Results from this testing will be used to improve seal design and material selection, mitigating risk of premature failure during open water testing and evaluation.