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Research Topic “Waste Management of Petroleum Hydrocarbons in Marine Environment”

Call for Papers

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The effective management of petroleum hydrocarbons in the marine environment is of critical importance. Marine oil spill response is essential to mitigate the impacts of petroleum hydrocarbons on the environment. It is a complex and systematic approach involving the implementation of various spill countermeasure techniques (e.g., using surface-active chemicals, in-situ burning, and mechanical containment and recovery), monitoring oil translocation, impact assessment, decanting of collected oily water, and management of oily waste. Although much effort has been made towards the safe and effective management of marine oil spills, many challenges remain to be addressed. The proposed Research Topic will aim to provide a summary of the latest advancement in the effective waste management of petroleum hydrocarbons in the marine environment. We welcome Original Research, Reviews, and Perspectives in the field of the current standing and future trends of managing petroleum hydrocarbons in the marine environment. The Research Topic of "Waste Management of Petroleum Hydrocarbons in Marine Environment" includes, but is not limited to:

(1) Fate, transport, and effects of spilled oil in the marine environment;
(2) Detection, identification, and characterization of spilled oil;
(3) Marine oil spill prevention and impact mitigation;
(4) Oil recovery and removal techniques and field application;
(5) Oil-water separation technologies;
(6) Oily waste treatment, disposal, and management;
(7) Methods for the selection of optimal oil spill response strategy;
(8) Ecotoxicology associated with oil spills and response by-products;
(9) Decision support methods and best management practices for spill response;
(10) Optimization of spill response and treatment processes;
(11) Offshore produced water management;
(12) Big data and artificial intelligence for waste management of petroleum hydrocarbons in marine environment.

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Submission Deadline

- January 31, 2022 Abstract
- March 31, 2022 Manuscript