Evaluating Ultraviolet Rays as a Method To Increase the Efficiency of Methods Used To Clean Up Oil Spills

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Purpose: The aim of the experiment was to see if using ultraviolet light as an auxiliary to existing methods would enhance the efficiency of different methods of oil spill cleanup. Procedure: Create an oceanic environment by adding 70 g of NaCl into 2000 mL of water. Add 50 mL of oil eating microbes to complete the saltwater solution. Pour 400 mL of saltwater into each beaker and add 50 mL of oil on top of the water. Add 50 mL of Pomegranate Peel Powder into 3 of the beakers. Record the amount of oil removed by measuring the change in oil levels with a ruler at intervals of 30 min, 60 min, and 120 min. Repeat these steps with each material. To evaluate the efficiency of Ultraviolet rays, recreate the oceanic solution of the preceding procedure. Use an Ultraviolet ray emitter to expose the oil to radiation for 2 days. Repeat the preceding procedure on the UV exposed water. Conclusion: Pomegranate Peel Powder removed less oil with the addition of ultraviolet rays. On the other hand, Polysorbate Polymer and Hair booms removed more oil with ultraviolet rays. Ultraviolet rays did enhance the efficiency of existing methods which proved my hypothesis wrong since it helped the existing methods perform better.

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