Goo Be Gone! Cleaning Up Oil Spills with Magnets and Nanotechnology

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Oil spills are a major problem that faces us today. They have a very large, negative impact on plants, animals, and their environment. Cleaning up oil spills in oceans and seas has burdened industry, government, and environmentalists for decades. This task requires great amounts of time, resources, and money, although cleanup is often only partially successful. Today, however, scientists are developing a new technique that combines nanotechnology and magnetism. In my experiment I tested to see if I could create a magnetic fluid capable of removing oil from water using a magnet, see how different amounts perform, and measure the efficiency. I hypothesized that no ferrofluid would be 0% efficient, one drop would be 65% efficient, and five drops would be 95% efficient. The results showed that no ferrofluid was 8% efficient, one drop was 53 % efficient, and five drops was 84 % efficient. In conclusion, I was able to create a ferrofluid capable of removing oil from water, although, if I improved my ferrofluid, I would most likely yield better results. In the future I will look to do further research and improve this method.