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Method Development for the Analysis of DDT, DDD, and DDE in Cow Milk

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Organochlorine Pesticides (OCs) are classified as persistent organic pollutants (POPs). They have been found to bioaccumulate in organisms over time. These chemicals tend to attach to fatty tissues in animals and humans, remaining for long periods of time. OCs may be responsible for a vast number of health conditions including neurological disorders, endocrine disruption, reproductive dysfunctions, and possible linkage to cancer. OCs such as DDT, DDE and DDD are banned, however, they have still been detected in environmental samples worldwide. The main objective of this study is to investigate the presence of DDT, DDE and DDD in cow milk using an innovated and environmental friendly technique, called Stir Bar Sorptive Extraction (SBSE). SBSE coupled with thermal desorption Gas Chromatography and Mass Spectroscopy will be applied in the analysis of OCs in milk samples.