A novel approach: Using financial market technical indicators to assess temporal trends in mercury deposition and concentrations.

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For years, trading decisions related to the financial markets have been based on momentum and stochastic oscillators among other technical indicators (TIs). Two of these TIs are the Moving Average Convergence-Divergence (MACD, a momentum oscillator based on the difference between two Exponential Moving Averages (EMAs)); and the stochastic oscillator (STO, which shows how in the case of financial markets a stock's price is doing relative to past movements). Given that these TIs are easily calculated and are independent of the nature of the underlying data-set, they are a potential powerful (easy to use, cheap and accurate) tool to assess temporal trends and changes in trends within other types of data as well; in this case that of mercury (Hg) wet deposition and mercury concentrations in rainfall as measured by the Mercury Deposition Network (MDN). Here, results of the MACD and STO analyses for MDN sites with at least 10 years worth of data, representing the "four corners" of the continental United States, are represented. Our analyses show that the MACD and STO can reveal long term (years) and short term (seasonal) changes in Hg deposition, differences in changes between sites, as well as provide insights if current trends will continue or not.

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