

Innovative Approaches to Environmental Prioritization Using Partially Ordered Sets (POSET) Theory

Environmental chemistry is a discipline that seeks to understand and mitigate the impact of pollutants on our environment. The complexity of environmental data, often characterized by multiple conflicting criteria, presents significant challenges in making informed decisions. Traditional methods of prioritization rely on multi-criteria analysis, which frequently necessitates the use of additional constraints and scales to achieve a common ground. This approach is not only challenging but also prone to controversy due to the subjective nature of the constraints applied. The need for a more objective and innovative method is evident, and this is where the theory of partially ordered sets (POSET) offers an alternative.

POSET theory offers a flexible and objective way to rank items without relying on a single measurement standard or additional rules, which makes it particularly useful in complex fields like environmental chemistry. By applying POSET theory, we can achieve a more accurate and unbiased prioritization of pollutants, facilitating more effective regulatory and remediation strategies.

This master's thesis represents an opportunity to contribute to the field of environmental chemistry by introducing a methodology that presents an alternative to traditional in data prioritization.

Position offered. Master research project (6-9 months)

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