# Article information:

Interactions between microplastics and phthalate esters as affected by microplastics characteristics and solution chemistry - ScienceDirect  
<https://www.sciencedirect.com/science/article/pii/S004565351831840X>

# Article summary:

1. Sorption of two phthalate esters (PAEs) onto three types of microplastics followed the order of PS > PE > PVC.

2. Solution pH and natural organic matter had no significant impact on PAEs sorption by microplastics.

3. The presence of NaCl and CaCl2 enhanced the sorption of both DEP and DBP because of the salting-out effect.

# Article rating:

May be slightly imbalanced: The article presents the information in a generally reliable way, but there are minor points of consideration that could be explored further or claims that are not fully backed by appropriate evidence. Some perspectives may also be omitted, and you are encouraged to use the research topics section to explore the topic further.

# Article analysis:

The article “Interactions between microplastics and phthalate esters as affected by microplastics characteristics and solution chemistry” is a comprehensive study that examines the sorption behavior of two phthalate esters (PAEs), including diethyl phthalate (DEP) and dibutyl phthalate (DBP), onto three types of microplastics (PVC: polyvinyl chloride, PE: polyethylene, and PS: polystyrene). The article is well written, with clear explanations for each step in the research process. The authors provide detailed information about their methodology, results, and conclusions, which makes it easy to follow their reasoning. Furthermore, they cite relevant literature to support their claims throughout the article.

The article does not appear to be biased or one-sided in its reporting; rather, it presents a balanced view on the topic at hand. It also does not contain any promotional content or partiality towards any particular viewpoint or opinion. Additionally, all possible risks associated with this research are noted in the article.

However, there are some missing points of consideration that could have been explored further in this study. For example, while the authors discuss how solution pH and natural organic matter had no significant impact on PAEs sorption by microplastics, they do not explore other factors such as temperature or salinity that may affect PAEs sorption by microplastics. Additionally, while they discuss how NaCl and CaCl2 enhance PAEs sorption by microplastics due to salting-out effects, they do not explore other ions that may have similar effects on PAEs sorption by microplastics.

In conclusion, this article is generally reliable and trustworthy due to its comprehensive coverage of the topic at hand as well as its lack of bias or promotional content; however there are some unexplored counterarguments that could have been considered in order to make this study more thorough.

# Topics for further research:

* Temperature effects on PAEs sorption by microplastics
* Salinity effects on PAEs sorption by microplastics
* Impact of other ions on PAEs sorption by microplastics
* Sorption behavior of PAEs on different types of microplastics
* Role of natural organic matter on PAEs sorption by microplastics
* Effects of solution pH on PAEs sorption by microplastics

# Report location:

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