# Article information:

Textural, surface and chemical properties of polyvinyl chloride particles degraded in a simulated environment - ScienceDirect  
<https://www.sciencedirect.com/science/article/pii/S0025326X18303928?via%3Dihub>

# Article summary:

1. PVC particles exposed to heat, UVB and solar radiation in artificial seawater or air underwent changes in their morphologies and produced new functional groups on the surface.

2. Chemical properties of eroded PVC underwent a dehydrochlorination and oxidation process during the aging process, which was slowed down by seawater.

3. Textural analysis of SEM images represents an independent set of additional parameters for understanding the degradation of PVC particles.

# 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 “Textural, surface and chemical properties of polyvinyl chloride particles degraded in a simulated environment” is a comprehensive study that examines the effects of thermal, UVB and solar radiation on polyvinyl chloride (PVC) particles in both terrestrial and aquatic environments. The authors provide detailed information about the materials used in their experiments as well as the methods employed to measure the degradation of PVC particles over time. The results are presented clearly with accompanying figures that illustrate the changes in morphology and chemical properties observed during degradation.

The article is generally reliable and trustworthy, as it provides evidence for its claims through detailed descriptions of experimental methods and results. However, there are some potential biases that should be noted. For example, while the authors do mention possible risks associated with plastic pollution, they do not explore these risks in detail or discuss potential solutions to mitigate them. Additionally, while they present data from both terrestrial and aquatic environments, they focus more heavily on data from terrestrial environments than aquatic ones; this could lead to an incomplete understanding of how PVC degrades over time in different environments.

In conclusion, this article provides a thorough overview of how thermal, UVB and solar radiation affect PVC particles over time in both terrestrial and aquatic environments. While it is generally reliable and trustworthy, there are some potential biases that should be noted when interpreting its findings.

# Topics for further research:

* Plastic pollution risks
* Mitigation strategies for plastic pollution
* PVC degradation in aquatic environments
* Effects of thermal radiation on PVC particles
* Effects of UVB radiation on PVC particles
* Effects of solar radiation on PVC particles

# Report location:

<https://www.fullpicture.app/item/4aece5e77aa0a9438bd13c8d76f26800>