# Article information:

Carbonation of cement paste under different pressures - ScienceDirect  
<https://www.sciencedirect.com/science/article/pii/S0950061823002222>

# Article summary:

1. Carbonation of cement paste causes a decrease in porosity.

2. An exponential model of the carbonation coefficient and air pressure was developed.

3. A chemo-mechanical model for cement paste strength under carbonation was established.

# Article rating:

Appears well balanced: The article presents the information in a reliable and balanced way, without biases and prejudices. The claims made in the article are well supported and, where applicable, all sides of the argument are given opportunity to present their point of view. The article appears trustworthy and reliable.

# Article analysis:

The article “Carbonation of Cement Paste Under Different Pressures” is an informative and reliable source of information on the effects of carbonation on cement paste under different pressures. The article provides a comprehensive overview of the process, including its effects on material composition, micro-morphology, structure, compressive strength, and splitting tensile strength. The authors have conducted extensive research to develop an exponential model for the carbonation coefficient and air pressure as well as a chemo-mechanical model for cement paste strength under carbonation. The article is well written and easy to understand, making it an accessible source of information for readers with varying levels of knowledge about the topic.

The article does not appear to be biased or one-sided in its reporting; rather, it presents both sides equally by providing evidence for both positive and negative effects of carbonation on cement paste properties. Furthermore, the authors have provided sufficient evidence to support their claims throughout the article, such as XRD results and SEM images that demonstrate changes in material composition before and after carbonation. Additionally, they have explored potential counterarguments by noting that high air pressure can accelerate the rate of carbonation but also noting that further research is needed to understand how this affects concrete structures over time.

In conclusion, this article is a trustworthy and reliable source of information on the effects of carbonation on cement paste under different pressures. It provides comprehensive coverage of the topic without any apparent bias or one-sidedness in its reporting, supported by sufficient evidence throughout the text.

# Topics for further research:

* Carbonation of cement paste
* Carbonation coefficient
* Chemo-mechanical model
* Compressive strength of cement paste
* Splitting tensile strength of cement paste
* Effects of air pressure on carbonation

# Report location:

<https://www.fullpicture.app/item/47a2e9eefb64e2e8cfd4ba12d5171dca>