# Article information:

Effect evaluation of microbial mineralization for repairing load-induced crack in concrete with a cyclic injection-immersion process - ScienceDirect  
<https://www.sciencedirect.com/science/article/pii/S2214509522008348?via%3Dihub>

# Article summary:

1. This study presents experimental investigations on repairing load-induced cracks in concrete with microbial mineralization technology.

2. The results indicated that after MICP treatment, the resistance of repaired cracked specimens to chloride penetration could be effectively improved.

3. Scanning electron microscope (SEM) and energy dispersive spectrum (EDS) tests revealed that the formation of microbial induced CaCO precipitation would accumulate and fill the concrete crack, which is believed to be the reason of improving resistance to chloride ingression in the repaired cracked specimens.

# 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:

This article provides a detailed overview of an experimental investigation into the use of microbial mineralization technology for repairing load-induced cracks in concrete. The article is well written and provides a comprehensive description of the experiments conducted, as well as their results and conclusions. The authors have provided sufficient evidence to support their claims, including visual observations, ultrasonic measurement tests, rapid chloride migration (RCM) tests and splitting tensile strength tests.

The article does not appear to contain any promotional content or partiality towards any particular method or product. It also does not appear to present one side more than another; rather it presents both sides equally by providing evidence for both positive and negative outcomes from using this technology for crack repair.

The article does not appear to contain any unsupported claims or missing points of consideration; all claims are supported by evidence from experiments conducted by the authors or other researchers mentioned in the article. Additionally, all potential risks associated with using this technology are noted throughout the article.

The only potential issue with this article is that it does not explore any counterarguments or alternative methods for repairing load-induced cracks in concrete; however, given that this was an experimental investigation into a specific method, this is understandable and does not detract from its overall trustworthiness and reliability.

# Topics for further research:

* Alternative methods for repairing load-induced cracks in concrete
* Advantages and disadvantages of microbial mineralization technology
* Ultrasonic measurement tests for concrete crack repair
* Rapid chloride migration (RCM) tests for concrete crack repair
* Splitting tensile strength tests for concrete crack repair
* Potential risks associated with using microbial mineralization technology

# Report location:

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