# Article information:

Bio-remediation of desiccation cracking in clayey soils through microbially induced calcite precipitation (MICP) - ScienceDirect  
<https://www.sciencedirect.com/science/article/abs/pii/S0013795219303035>

# Article summary:

1. Desiccation cracking in clayey soils can cause significant weakening of soil strength and increase the hydraulic conductivity of clayey soils, leading to various geohazards.

2. Traditional methods for remediation of desiccation cracking include the use of chemical additives such as lime and cement, fiber reinforcement, compaction control, surcharge loading, geogrid, human hair and plant root reinforcement.

3. Microbially induced calcite precipitation (MICP) is a novel remediation technology that is environment-friendly and sustainable which has been proposed to enhance the cracking resistance of clayey soils.

# 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 provides an overview of desiccation cracking in clayey soils and potential solutions for its remediation. The article is well-structured with clear explanations of the underlying mechanism of desiccation cracking in clayey soils as well as traditional methods used for its remediation. The article also presents a novel solution – MICP – which has been proposed to enhance the cracking resistance of clayey soils.

The article appears to be reliable overall; however, there are some potential biases that should be noted. For example, while the article does mention traditional methods for remediation such as chemical additives, fiber reinforcement, compaction control etc., it does not provide any detailed information about these methods or their effectiveness in reducing desiccation cracks in clayey soils. Additionally, while the article does discuss MICP as a potential solution for remediating desiccation cracks in clayey soils, it does not provide any evidence or data to support this claim or compare it with other traditional methods. Furthermore, there is no discussion about possible risks associated with using MICP or any other method mentioned in the article which could lead to an incomplete understanding of all available options for remediating desiccation cracks in clayey soils.

In conclusion, while this article provides an overview of desiccation cracking in clayey soils and potential solutions for its remediation including MICP, more evidence should be provided to support claims made about its effectiveness compared to other traditional methods as well as possible risks associated with using it before any conclusions can be drawn about its reliability and trustworthiness.

# Topics for further research:

* Desiccation cracking clayey soils remediation
* Chemical additives desiccation cracking clayey soils
* Fiber reinforcement desiccation cracking clayey soils
* Compaction control desiccation cracking clayey soils
* MICP desiccation cracking clayey soils
* Risks associated with desiccation cracking clayey soils remediation

# Report location:

<https://www.fullpicture.app/item/e3e2e7f5cfba4a6bcc03143e639ecf22>