# Article information:

An innovative process of clad teeming for preparing slab ingot | SpringerLink
<https://link.springer.com/article/10.1007/s42243-022-00802-7>

# Article summary:

1. An innovative process of clad teeming was proposed to prepare slab ingot, which featured a built-in cold core to inhibit solidification defects.

2. Solidification microstructures of the clad ingot were analyzed and compared with a reference ingot without cold core.

3. Results show that the solidification microstructures in the clad ingot are refined and homogenized, and the interfacial shear strength reaches 318 MPa.

# 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 is generally reliable and trustworthy, as it provides detailed information on an innovative process of clad teeming for preparing slab ingots, including its effects on solidification microstructures, interfacial morphologies, mechanical properties, heat transfer and nucleation during solidification. The article also presents results from experiments conducted to test the effectiveness of this process. However, there are some potential biases in the article that should be noted. For example, while the article does mention some other methods for preparing large ingots (e.g., ultrasonic treatment, pulsed magneto-oscillation), it does not provide any evidence or data to support its claims about their effectiveness or limitations. Additionally, while the article mentions possible risks associated with this new process (e.g., impurity introduction), it does not provide any details on how these risks can be mitigated or avoided. Finally, while the article does present both sides of the argument (i.e., advantages and disadvantages of this new process), it does not explore any counterarguments or alternative solutions that could be used instead of this new process.

# Topics for further research:

* Ultrasonic treatment for large ingots
* Pulsed magneto-oscillation for large ingots
* Impurity introduction risks in clad teeming
* Mitigation strategies for clad teeming
* Alternatives to clad teeming for large ingots
* Counterarguments to clad teeming for large ingots

# Report location:

<https://www.fullpicture.app/item/542f6847c7df5d3dffbe4162e28c8727>