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Non-firing Solidification of Ceramics using Mechanical Activation Method and Its Application

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Highlights of This Poster Presentation

➤ Target

We propose a sinter-free room-temperature solidification process for ceramics that contributes to the SDGs. The particle surfaces are activated by mechanochemical treatment, and the particles are bonded together at room temperature.

➤ Conclusion

Mild ball milling allows mechanochemical activation of the ceramic particle surface without particle-crushing. The activating components dissolve and precipitate, forming solid bridges between particles.

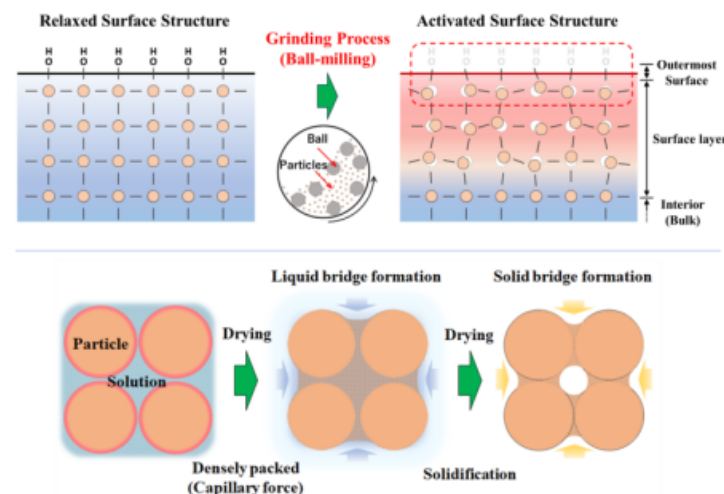


Fig. 1. Non-firing Solidification of Ceramics using Mechanochemical Activation Method