Japanese Researchers Create Cement that Can Be Eaten

Vocabulary

cement emission crush compress biodegradable

Article

Tokyo University researchers Yuya Sakai and Kota Machida have developed a technology to turn food waste into a type of cement. And it may also be possible to eat it, they found.

It's the world's first process for making cement from just food waste. And the researchers say that it's nearly four times stronger than regular cement.

Sakai and Machida say they hope it can be used to help fight global warming, reducing greenhouse gas emissions produced by wood waste, as well as carbon dioxide emissions from making cement.

Food waste is a major problem around the world. Japan produced around 5.7 million tons of food waste in 2019. The government wants to reduce that to around 2.7 million tons by 2030.

Sakai developed the technology while researching materials that could be used instead of cement.

He first found a way to make cement by drying, crushing, and compressing small pieces of wood. Then, together with his student Machida, he used the same process to make cement from food waste.

Sakai and Machida have used different types of food waste in the process, including tea leaves, orange and onion peels and Chinese cabbage, among others.

To be able to eat the material — which the researchers said can taste quite good — it would need to be broken into small pieces and boiled.

And if it doesn't get eaten, the cement is also reusable and biodegradable.

Discussion

1. What are your thoughts on Yuya Sakai and Kota Machida's food waste cement?
2. What changes do you expect to see in the construction industry in the next few decades?
3. How wasteful is the industry you work in? Has this changed in recent years?
4. How difficult do you think it would be to live a zero-waste lifestyle?

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