

Image: Chemistry experiment on space station

January 13 2015



Credit: NASA/Roscosmos

Resembling an action-hero power source, this is actually a Russian experiment that was run on the International Space Station.

Polymers are repeated molecules that form many materials we use every day, such as rubber and nylon. Rubber is a [natural polymer](#) but polymers can also be created synthetically using [chemical reactions](#) to string

together monomers into new structures.

In the weightlessness of space, these reactions can be tailored to create polymer walls that form shells. The experiment demonstrates this method of creating polymers in space as well as improving computer models and offering a striking illustration of physics and chemistry in action for educational purposes.

The experiment is being run in a contained glovebox and features two hardening processes to 'set' the end structures.

Provided by European Space Agency

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