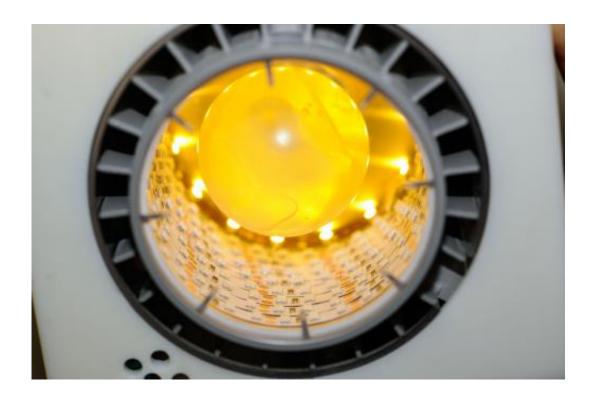


Image: Chemistry experiment on space station

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 <u>natural polymer</u> but polymers can also be created synthetically using <u>chemical reactions</u> 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

Citation: Image: Chemistry experiment on space station (2015, January 13) retrieved 24 April 2024 from https://phys.org/news/2015-01-image-chemistry-space-station.html

This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.