

Physical Science Experiment Conducted on Space Station

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Expedition 11 NASA Space Station Science Officer John Phillips began working with the Fluid Merging Viscosity, or FMVM experiment this week. This physical science experiment is studying viscosity -- a property of fluids that causes them to resist flowing because of the internal friction created as the molecules move against each other. Understanding the viscosity of fluids is important for everything from designing laboratory experiments to industrial production of materials.

One way to determine viscosity is to measure how long it takes two spheres of liquid to merge into a single spherical drop. Phillips used honey with two different viscosities and released multiple drops of the honey from a syringe onto strings. Digital images of the drops were recorded as they joined to form one drop.

Researchers hope data from FMVM will provide insight into the behavior of glasses -- materials that may be used to fabricate parts or equipment for long-term space missions and improve future materials processing experiments carried out in space and on Earth.

Source: NASA

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