

The sun may contain more neon than thought

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The Chandra X-ray Observatory's survey of nearby sun-like stars suggests there's nearly three times more neon in the sun and local universe than thought.

If that's true, scientists say it would solve a critical problem with understanding how the sun works.

"We use the sun to test how well we understand stars and, to some extent, the rest of the universe," said Jeremy Drake of the Harvard-Smithsonian Center for Astrophysics. "But in order to understand the sun, we need to know exactly what it is made of."

It's not well known how much neon the sun contains, the journal *Nature* reported, and that's critical information for creating theoretical models of the sun.

To determine the neon content, Drake and Paola Testa of the Massachusetts Institute of Technology observed 21 sun-like stars within 400 light years of Earth. Those stars and the sun should contain about the same amount of neon.

However, they were found to contain about three times more neon than believed for the sun.

"Either the sun is a freak in its stellar neighborhood, or it contains a lot more neon than we think," Testa said.

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