Initially, Barlow's team of astronomers was looking to examine how exploding stars create such huge amounts of dust. But when studying emission lines (the wavelengths emitted by molecules spinning in space), the team noticed some unexpected readings.

The light coming from some regions of the Crab Nebula was showing "extremely strong and unexplained" peaks in intensity, ranging from 618 GHz to 1235 GHz. Upon consulting the databases of known properties of molecules, the scientists concluded that these wavelengths could only be coming from spinning molecular ions of argon hydride. The team further concluded that only the argon-36 isotope could rotate at such a rate.

Scientists had previously hypothesized that the elements created by supernovas should include a lot of argon-36 and no argon-40, which was supported by the discovery.

Professor Matt Griffin from Cardiff University said: "Here we see the excellent performance of the Herschel-SPIRE spectrometer, the expertise of the instrument team in producing the highest quality data, and the tenacity and vision of the scientists analyzing it, all coming together to make an intriguing new discovery."

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NEWS ITEM (*NARRATION*)

Courtesy: ***BUSINESS LINE***, *CHENNAI*, *INDIA*, *24 APRIL 2014*

MISSING NOBLE GAS TO BE REDISCOVERED: THE GAS XENON MAY BE RESTING IN EARTH'S BELLY

The missing noble gas Xenon did not leave the earth's atmosphere and disappear into space but may be resting at the earth's core, a thrilling new study reveals.

Xenon is a noble gas. Like other noble gases such as Helium and Neon, it is mostly chemically inert. According to Chinese researchers, the mystery about where the gas vanished may finally be resolved.

The scientists believe that Xenon might have chemically reacted with iron and nickel in the earth's core where it is held. The earth's core, which contains about one-third of the planet's mass, is made of iron and nickel. According to Yanming Ma, a computational physicist at Jilin University in Changchun, China, the earth's core is more likely to hold the missing Xenon.

Ma and his colleagues reasoned that if the structures of iron-xenon compounds are different, they could form a compound.