

# The Possible Existence of Elements Beyond the Periodic Table

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It's clear that the origin, birthplace or the genetrix of heavy elements is stellar explosions. These explosions create elements heavier than Helium, Lithium, and so on, with the size of the blast dictating which elements are formed. Essentially, the larger the star, the greater the potential for a massive explosion, which in turn generates higher pressure and heat, leading to the formation of elements heavier than the initial ones—for instance, Helium from Hydrogen, or Lithium from Helium. In other words, heavier elements are typically created by supernovae.

On the other hand, the lifespan of the Milky Way is over 10 billion years old. Considering the universe is around 14 billion years old, the supermassive black hole at the centre of our galaxy must have been formed by the Big Bang itself. This black hole must have originated from the universe's primordial super-stars. Therefore, the Big Bang, being the largest, most powerful, and heaviest explosion in the universe, could have created all the elements in existence, from the lightest to the heaviest.

Given the immense size of the universe, we can expect that in some corner of the cosmos, there are elements heavier than those found in the Milky Way. Research conducted by the Saleh Research Group shows that at least 10 elements heavier than the heaviest known element on the periodic table could exist in the universe.

## References:

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