Chemistry, the study of the intricate dances and bondings of low-energy electrons to form the molecules that make up the world we live in, may seem far removed from the thermonuclear heat in the interiors of stars and the awesome power of supernovas. Yet, there is a fundamental connection between them.

The formation of the elements began about 14 billion years ago in the early minutes of the Big Bang. After about 20 minutes, the ordinary matter in the Universe was a mixture hydrogen, helium, and electrons, which would start to be bound into atoms a few hundred thousand years later. From there, the periodic table of elements would emerge.