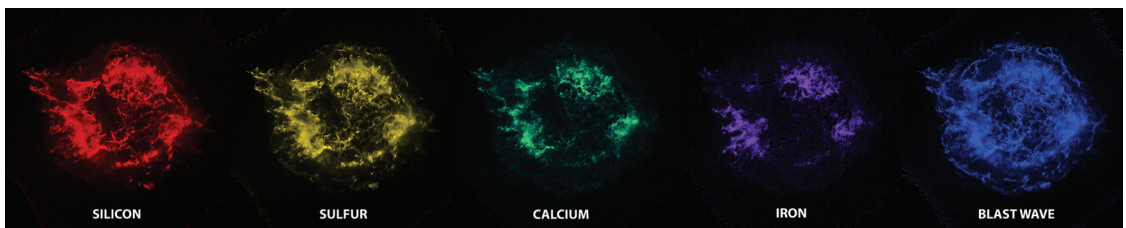


CASSIOPEIA A



Most of the elements essential for life on Earth comes from inside the furnaces of stars and the explosions that mark the end of some stars' lives. Astronomers have long studied exploded stars and their remains — known as “supernova remnants” — to better understand exactly how stars produce and then disseminate many of the elements observed on Earth, and in the cosmos at large.

Due to its unique evolutionary status, Cassiopeia A is one of the most intensely studied of these supernova remnants. This image from NASA's Chandra X-ray Observatory shows the location of different elements in the remains of the explosion: silicon (red), sulfur (yellow), calcium (green) and iron (purple). Each of these elements produces X-rays within narrow energy ranges, allowing maps of their location to be created. The blast wave from the explosion is seen as the blue outer ring.