

Abstract

Despite iridium's cruciality in modern industry, it is one of the rarest occurring elements in the Earth's crust, with an average concentration of 10-12 ppb (0.001-0.0012 ppm). Within the crust there exists thin, stratigraphically horizontal upticks in the concentration of iridium. These concentrations are widely believed to be associated with the impacts of large asteroids, which tend to include relatively high concentrations of iridium in their composition. The most well-known of these iridium anomalies is the Cretaceous-Paleogene (K-Pg) Boundary, which was the result of the Chicxulub asteroid impact that is commonly thought to have led to a mass extinction. The concentration of iridium within the K-Pg iridium anomaly is variable where it has not been eroded away, but otherwise encompasses the globe.