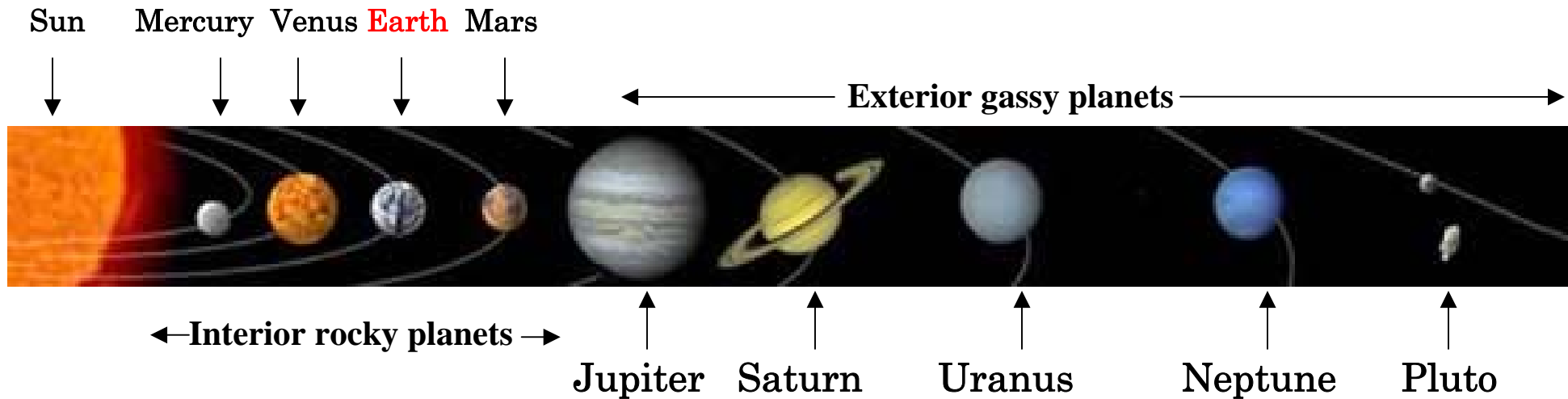


POSSIBLE NUCLEAR TRANSFORMATION OF NITROGEN IN THE EARTH'S ATMOSPHERE

MIKIO FUKUHARA

TUNGALOY Co.Ltd.,



Percentage of nitrogen composition of atmosphere for all solar planets and their 61 satellites

These planets and satellites except for the Earth, Titan and Triton: **~6%**

the Earth: **78.8%**, Titan : 65-98% (**$2 \times 10^{-6}\%$** of the Earth), Triton: **~100%** (**$5 \times 10^{-6}\%$** of the Earth)

Although the interior rocky planets had formed by accretion of planetesimals at almost the same time, a question for the origin of nitrogen has not been entirely resolved, and has been overlooked without the consensus.

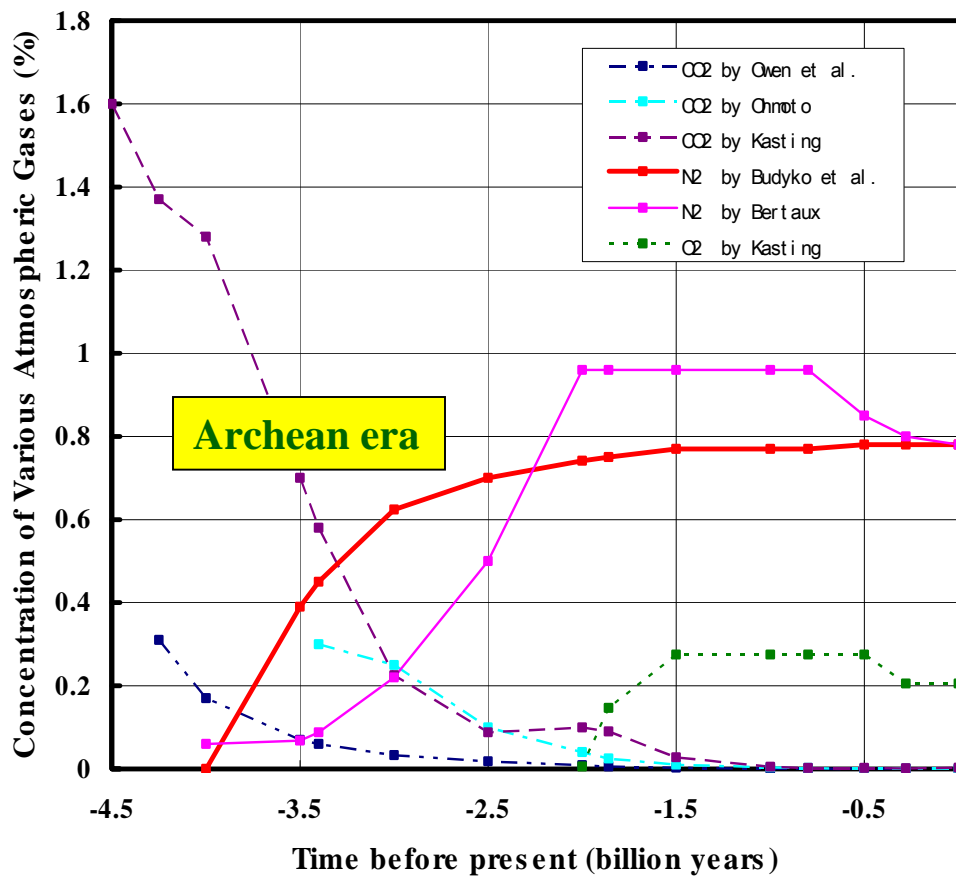
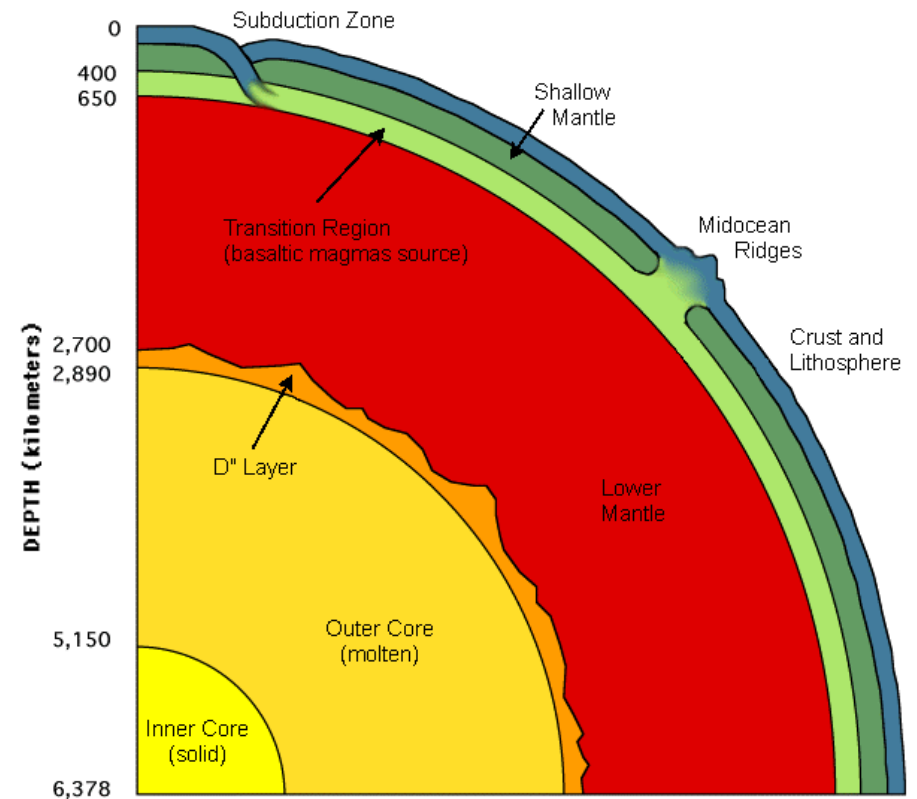


Fig. 1 The concentration change of various atmospheric gases from the primitive to present times of the Earth.

The decrease in CO₂ composition is accompanied by a gradual accumulation of nitrogen in the atmosphere. The disappearance comes from the formation of carbonate rocks containing carbon dioxides as mantle in the hot sea.

Thus dynamic reaction of carbonates is associated with formation of nitrogen.



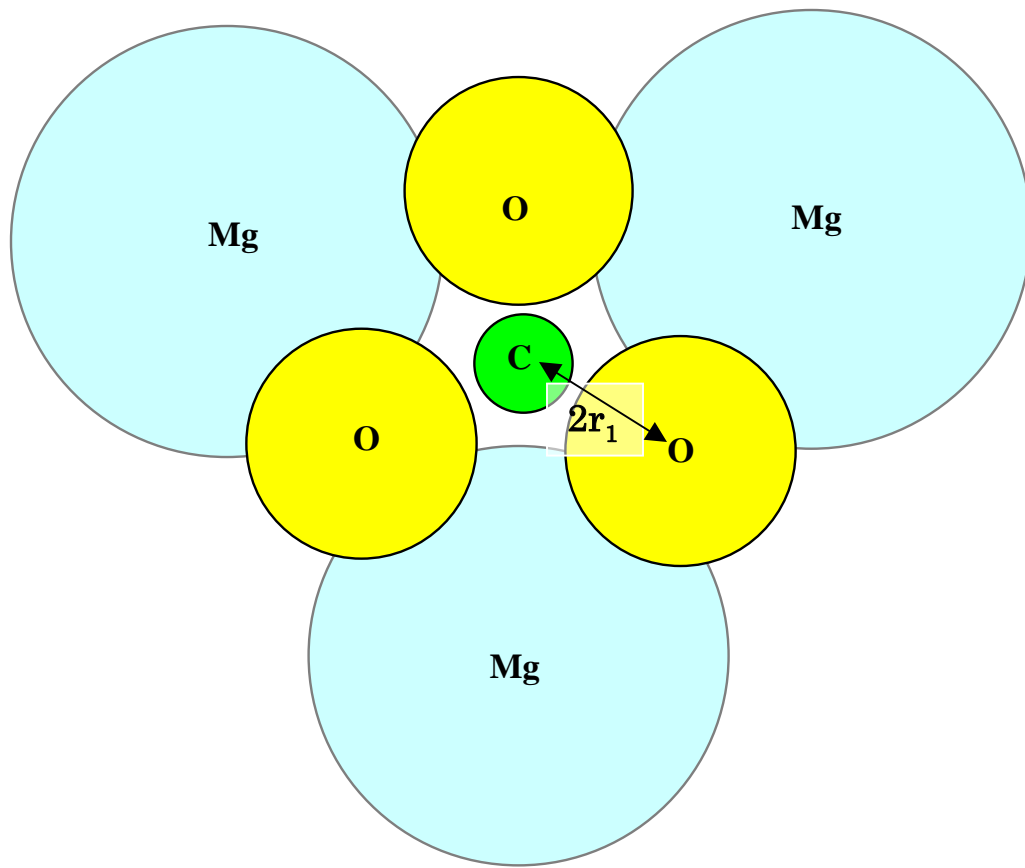


Fig.2 Configuration of CO₃ group atoms in (111) magnesite crystal planes. The CO₃ group lies exactly midway between the planes on which the Mg atoms lie.

Formation of nitrogen from carbon and oxygen in carbonate crystals was interpreted to be the result of **endothermic nuclear transmutation**,
 $^{12}\text{C} + ^{16}\text{O} + 2e^* + 2\nu = 2\ ^{14}\text{N} + ^4\text{He}\uparrow$
 with help of **electropionic attraction effect (48%)** due to the excited electron capture and **neutral pion catalysis**.

The excited electrons were generated by rapid fracture or sliding of carbonate crystals due to **volcanic earthquake**, and **plenty of neutrinos** were derived from the **young sun**.