

How common is the water in the Universe?

Big Bang
(15 billion years ago)

STARS & INTERSTELLAR CLOUD

Fusion of Hydrogen and Helium
(in the stars) = Carbon, Nitrogen,
Oxygen

What do we get from random binding of these elements?

The beginning of the Earth
NEBULA, 5 billion years ago

Cold accretion
heated up, differentiated

Earth's crust, Mantle, and Core

Atmosphere and Oceans on the surface
(4.5 billion years old)

First atmosphere H₂

HCl

CO

CO₂

N₂

There was no free O₂