

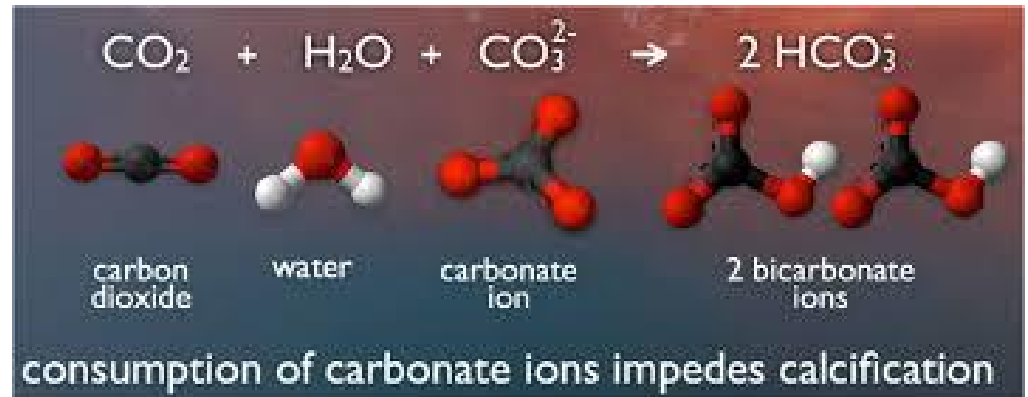
OCEAN ACIDIFICATION

WHAT IS IT?

Ocean acidification is the decrease in the pH level of the Earth's oceans, caused by the increase of carbon dioxide (CO₂) from the atmosphere. This is a really big problem in the world and needs to be fixed or there will be many consequences.

WHAT IS THE CHEMISTRY RELATED TO THE OCEAN BECOMING ACIDIC

When carbon dioxide (CO_2) is absorbed by seawater, chemical reactions occur that reduce seawater pH, this can be shown as



CHEMISTRY RELATED TO AQUATIC CREATURES BY ACIDIC OCEAN

Calcium carbonate minerals are the building blocks for the skeletons and shells of many marine organisms. Acids that are produced destroy the shells of organisms making it a hazard for the environment because all acids react with calcium carbonate to make carbon dioxide.

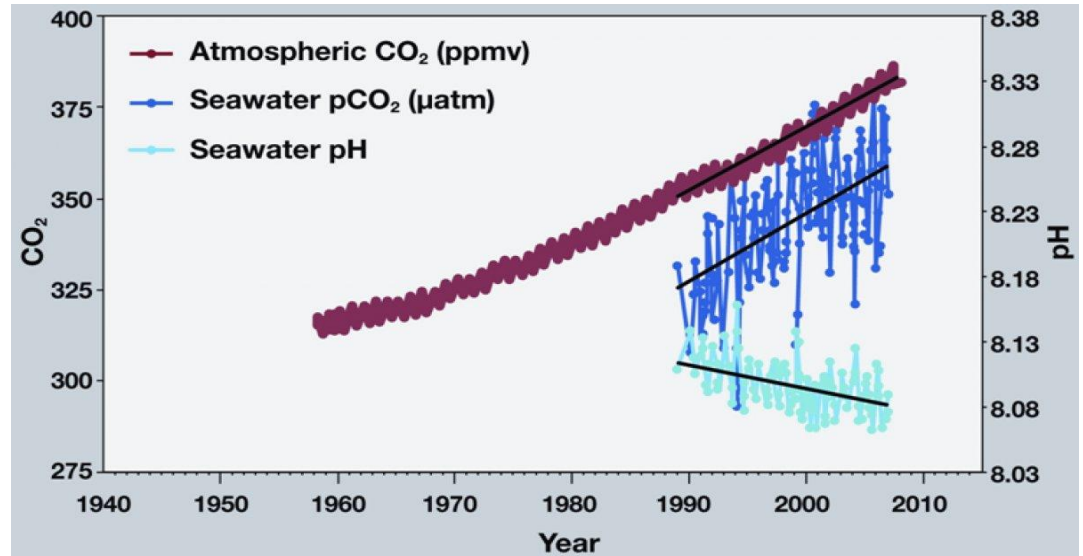


WHAT ARE SOME OF THE MAIN CONTRIBUTORY TO CO₂ EMISSION?

There are numerous contributing factors to CO₂ emissions in the Earth's atmosphere. These include both human and natural emissions. Natural emissions consist of the decomposition of plants and animal matter, and respiration. Human emissions consist of deforestation (plants store CO₂, so when they are gone more CO₂ will be left in the atmosphere) and the burning of fossil fuels such as wood, coal, oil, and natural gas. Humans burn fossil fuel for fuel consumption, and in doing so release large quantities of carbon dioxide into the atmosphere.

HISTORIC AND MODERN TRENDS IN CO₂ AND PH OF OCEAN

As the CO₂ levels rise in the atmosphere so does the CO₂ in the sea water. This causes the water pH level to decrease, meaning the water is more acidic.



STEPS TAKEN TO SLOW OCEAN ACIDIFICATION

To reduce the acidity of the oceans water, we would first have to reduce the amount of CO₂ being emitted into the atmosphere. Methods to do this include use more natural fuels, and clean renewable energy(solar, wind, nuclear), drive less, carpool, recycle, and many more. By doing these the CO₂ emissions would decrease and in turn reduce the pH level of the oceans water.