

Ebullioscopy and Cryoscopy of water solution of NaCl

Physical Chemistry explains the warming up of the climate and drought

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Phase diagram of water and water solution of NaCl

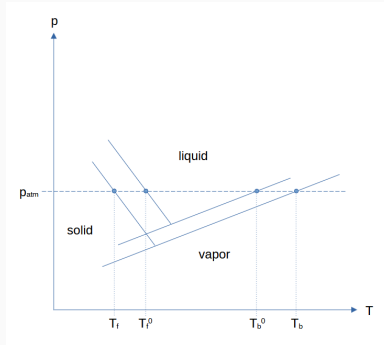
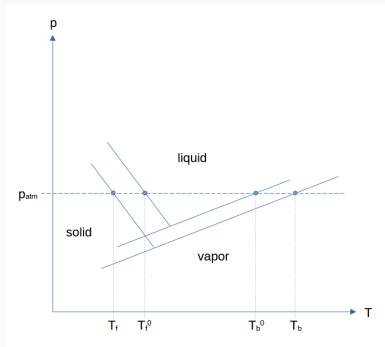


Figure 1: Phase diagram of water and water solution of salt NaCl — illustrative drawing [1]. p_{atm} denotes atmospheric pressure. Temperatures marked are: T_f^0 and T_b^0 of fusion and boiling of the solvent and T_f and T_b of fusion and boiling of the water solution of NaCl. It should be noted that always $T_f < T_f^0$ and $T_b > T_b^0$.

Phase diagram of water and water solution of NaCl



From the phase diagram, we can see that salt water must be heated more to boil and cooled more to freeze at the same atmospheric pressure.

About the salinity of the seas and oceans

There is a problem with the increasing content of rock salt (NaCl) and other salts in the world's oceans and seas, due to the extraction of hundreds of millions of tons of rock salt annually. Brine and salt from salt mines ultimately flow into rivers, increasing the salinity of the seas and oceans. Evaporation occurs at higher temperatures from water containing more salt, causing global warming. As a result, the warm salty water melts the ice in the Arctic and Antarctic, while salt ions in ocean and sea water, due to solvation, retain water and reduce its evaporation, resulting in fewer clouds, which leads to drought conditions on land.

Sea water salinity and drought

Furthermore, as the salt content in ocean and seawater increases, the solubility of gases such as carbon dioxide, which plankton need for photosynthesis, decreases. This leads to the extinction of plankton, reducing the amount of food for fish, and producing less oxygen released into the atmosphere. The saltier the water, the less oxygen it contains, so fish ultimately suffocate. The Dead Sea contains so much salt that it is devoid of life. If we continue to extract salt, all our seas and oceans will resemble the Dead Sea. Salt mining must be stopped and seawater and ocean desalination plants and ships built as soon as possible, and salt recovered from the seas and oceans should be used as needed. Otherwise, drought will continue to worsen on Earth, leading to the extinction of all life on the planet.

Rain and snow will return

Rain and snow will return as thousands of tons of salt are extracted from Earth's seawater and placed back into salt mines, ensuring that this salt never again enters the ecosphere.



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Podstawy chemii nieorganicznej Część 1. (Basics of Inorganic Chemistry Part 1.).

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