Seed Germination in Low Pressure Environment

Hirofumi Hashimoto[1]; Tsutomu Hinokuchi[2]

[1] Inst. of Eng. Mech. and Syst., Tsukuba Univ.; [2] Grad. School of Syst. and Info. Eng., Tsukuba Univ.

http://www.kz.tsukuba.ac.jp/~hhashi/index.htm

In order to cultivate plants under low pressure environment, germination experiments of white radish were conducted under low pressure experiment, under low oxygen partial pressure experiment, and in pure oxygen experiment. Seeds germinated at more than 8kPa oxygen partial pressure. At 6kPa oxygen partial pressure, the germination rates under low pressure and in pure oxygen were higher than that under low oxygen partial pressure. This phenomenon could be related to the diffusion of oxygen molecules.