

## 沸石添加对NaCl胁迫下黄瓜幼苗生长及离子含量的影响

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## Effects of zeolite on growth and ionic contents of cucumber seedlings under NaCl stress

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**摘要** 试验研究了沸石添加对NaCl胁迫下黄瓜幼苗生长及离子含量的影响。结果表明,在相同的NaCl溶液浓度下,随沸石量的增加,幼苗的株高、茎粗、叶面积及干物重呈增加趋势;光合色素含量上升,蒸腾速率(E)、光合速率(Pn)和气孔导度(Gs)增加而胞间CO<sub>2</sub>浓度(Ci)下降;超氧化物歧化酶(SOD)、过氧化氢酶(CAT)活性和可溶性蛋白质含量(Pr)含量增加;K、Mg在根、茎、叶中的含量上升,Ca在茎叶中含量亦增加,Na在根、茎、叶中的含量明显下降。表明沸石可以在一定程度缓解NaCl胁迫对黄瓜幼苗造成的伤害。

**关键词:** 黄瓜幼苗 NaCl胁迫 沸石 离子含量 黄瓜幼苗 NaCl胁迫 沸石 离子含量

**Abstract:** The experiment was performed to study the effects of zeolite added on the growth and ionic contents of cucumber seedlings under NaCl stress. Results indicated that addition of zeolite increased stem height and diameter, leaf area and total dry weight of cucumber seedlings under NaCl stress. Photosynthetic pigment contents also increased, E, Pn and Gs increased but Ci decreased; SOD, POD activity and Pr contents also increased; contents of K, Mg in dry weight of roots, stems and leaves, contents of Ca in dry weight of stems and leaves increased, but contents of Na in dry weight of roots, stems and leaves decreased. All the indexes indicated that the application of zeolite can reduce the NaCl stress on cucumber seedlings at the stated concentration.

**Keywords:**

## 引用本文:

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