**Cadmium induced changes in the metabolic activities and elemental distribution pattern of *Acanthus ilicifolius* L.**

 Shackira A M and Jos T Puthur\*

Plant Physiology and Biochemistry Division, Department of Botany, University of Calicut,

C.U. Campus P.O., Kerala-673635, India.

E mail : jtputhur@yahoo.com

**S 1** Effect of CdCl2 on total chlorophyll, carotenoid content, RWC and DW of *Acanthus ilicifolius* L. cultured in Hoagland solution. The data are the average of recordings from three independent experiments, each with a minimum of 3 replicates (i.e. n=3x3). The data represent mean ± S.E

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| CdCl2 (µM) | Total chlorophyll(mg/g DW) | Carotenoid (mg/g DW) | RWC (%) | DW (%) |
| Control | 2.66±0.01a | 0.76±0.02a | 94.00±0.41a | 15.55±0.78a |
| 20 | 2.04±0.01b | 0.72±0.01b | 91.25±1.31b | 15.21±0.64a |
| 40 | 1.21±0.01c | 0.38±0.01c | 49.75±1.03c | 8.92±0.04b |
| 60 | 0.91±0.01d | 0.22±0.01d | 37.50±0.65d | 5.65±0.02c |
| 80 | 0.60±0.01e | 0.14±0.01e | 27.25±0.85e | 4.52±0.02d |
| 100 | 0.45±0.01f | 0.11±0.01f | 21.50±0.50f | 2.83±0.01e |

**S2** Leaf area and root length of *Acanthus ilicifolius* L. cultured in Hoagland nutrient solution exposed to CdCl2 (40 µM). Different alphabetical letters indicate statistically different means at p ≥ 0.05

|  |  |  |
| --- | --- | --- |
| **Days** | **Leaf area (cm2)** | **Root length (cm)** |
| **Control** | **CdCl2** | **Control** | **CdCl2** |
| **1** | 27.25±0.54a | 27.35±0.71a | 7.19±0.37a | 7.15±0.21a |
| **3** | 29.92±1.05a | 28.68±0.60a | 7.75±0.21a | 7.41±0.25a |
| **6** | 30.76±0.52a | 28.83±0.81b | 8.34±0.35a | 7.97±0.36a |
| **9** | 31.45±1.17a | 29.23±0.90a | 10.54±0.34a | 8.08±0.25b |
| **12** | 32.27±0.75a | 29.43±0.71b | 12.36±0.38a | 8.20±0.49b |
| **15** | 35.13±0.85a | 29.85±0.72b | 14.39±0.73a | 8.32±0.73b |