



**Supplementary Fig. 5** Distribution of cytochalasin D-induced actin rods (stained with green fluorescent phalloidin) and charasomes (stained with red fluorescent FM4-64 in A, E and C) in branchlet internodal cells of *C. australis*. Actin rods were induced by one hour-treatment with 5  $\mu\text{M}$  cytochalasin D (A-F) and by two hours treatment with 25  $\mu\text{M}$  cytochalasin D (G-H). A-D Similar densities of actin rods at a charasome rich area (A is the merged image, B is the actin image) and at a charasome poor region (C and D) of the same cell. NL = chloroplast free neutral line. E and F Different densities of actin rods at an alkaline region with a homogeneous distribution of small charasomes. The arrow in F points to a subcortical actin bundle. G and H Actin rods in different regions of the same cell. Bars are 10  $\mu\text{m}$ .