

Figure S1. The effects of Cd and exogenous GB application on MDA accumulation in the shoots (**A,B**) and roots (**C,D**) of two tobacco cultivars (Left: Guiyan1; Right: Yunyan2) exposed to 5 μM Cd for 5, 10, and 15 days: The error bars represent the SD values ($n = 3$). The different letters indicate the significant differences ($p < 0.05$) among the 4 treatments within each sampling date. Control, GB, Cd, and Cd + GB correspond to BNS + foliar spray of deionized water, BNS + foliar spray of 500 μM GB, BNS + foliar spray of deionized water + 5 μM CdCl₂, and BNS + foliar spray of 500 μM GB + 5 μM CdCl₂, respectively.

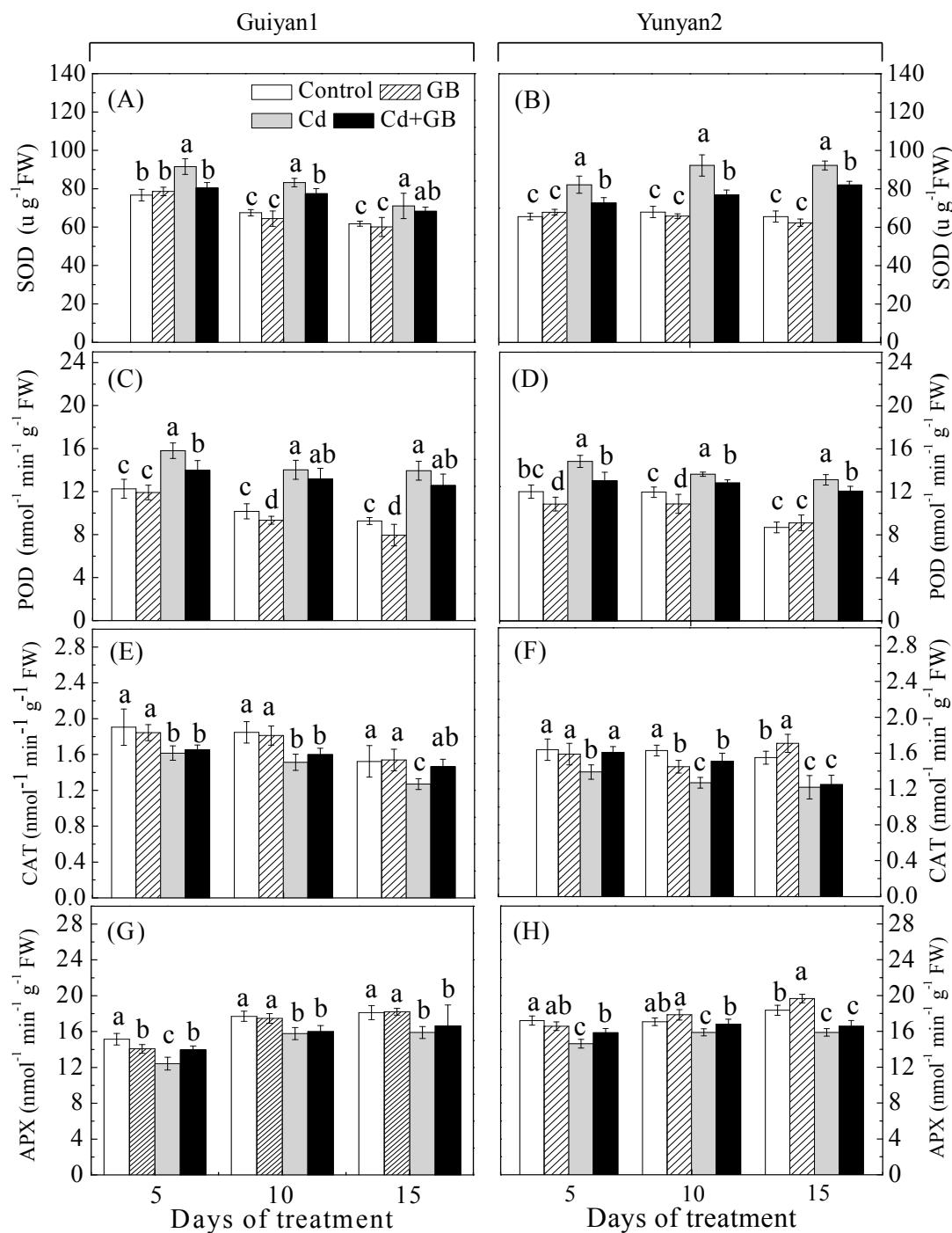


Figure S2. The effects of Cd and exogenous GB application on the SOD, POD, CAT, and APX activities in the shoots of two tobacco cultivars (Left: Guiyan1; Right: Yunyan2) exposed to 5 μM Cd for 5, 10, and 15 days. The error bars represent the SD values ($n = 3$). The different letters indicate the significant differences ($p < 0.05$) among the 4 treatments within each sampling date. Control, GB, Cd, and Cd + GB correspond to BNS + foliar spray of deionized water, BNS + foliar spray of 500 μM GB, BNS + foliar spray of deionized water + 5 μM CdCl_2 , and BNS + foliar spray of 500 μM GB + 5 μM CdCl_2 , respectively.

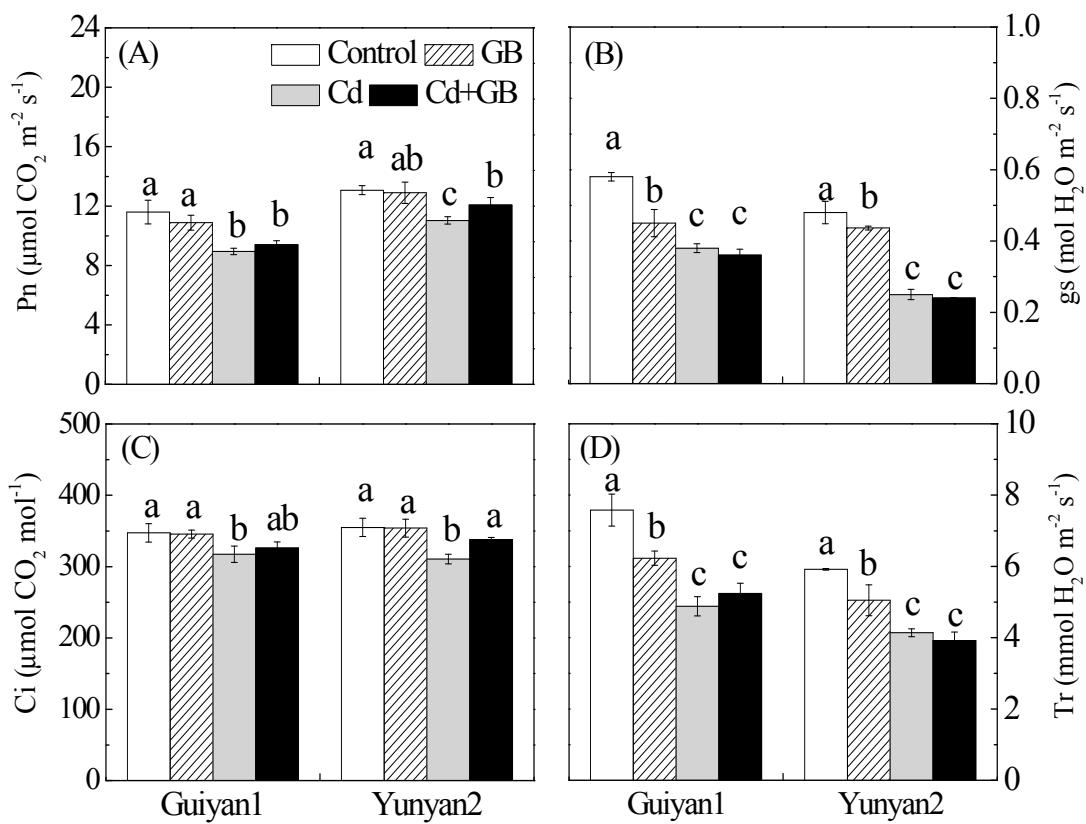


Figure S3. The effects of Cd and exogenous GB application on the photosynthesis parameters of two tobacco cultivars after 15 days of Cd exposure: The error bars represent the SD values ($n = 3$). The different letters indicate the significant differences ($p < 0.05$) among the 4 treatments within each cultivar. Control, GB, Cd, and Cd + GB correspond to BNS + foliar spray of deionized water, BNS + foliar spray of 500 μM GB, BNS + foliar spray of deionized water + 5 μM CdCl_2 , and BNS + foliar spray of 500 μM GB + 5 μM CdCl_2 , respectively. P_n = net photosynthetic rate, g_s = stomatal conductance, T_r = transpiration rate, and C_i = intercellular CO_2 concentration.

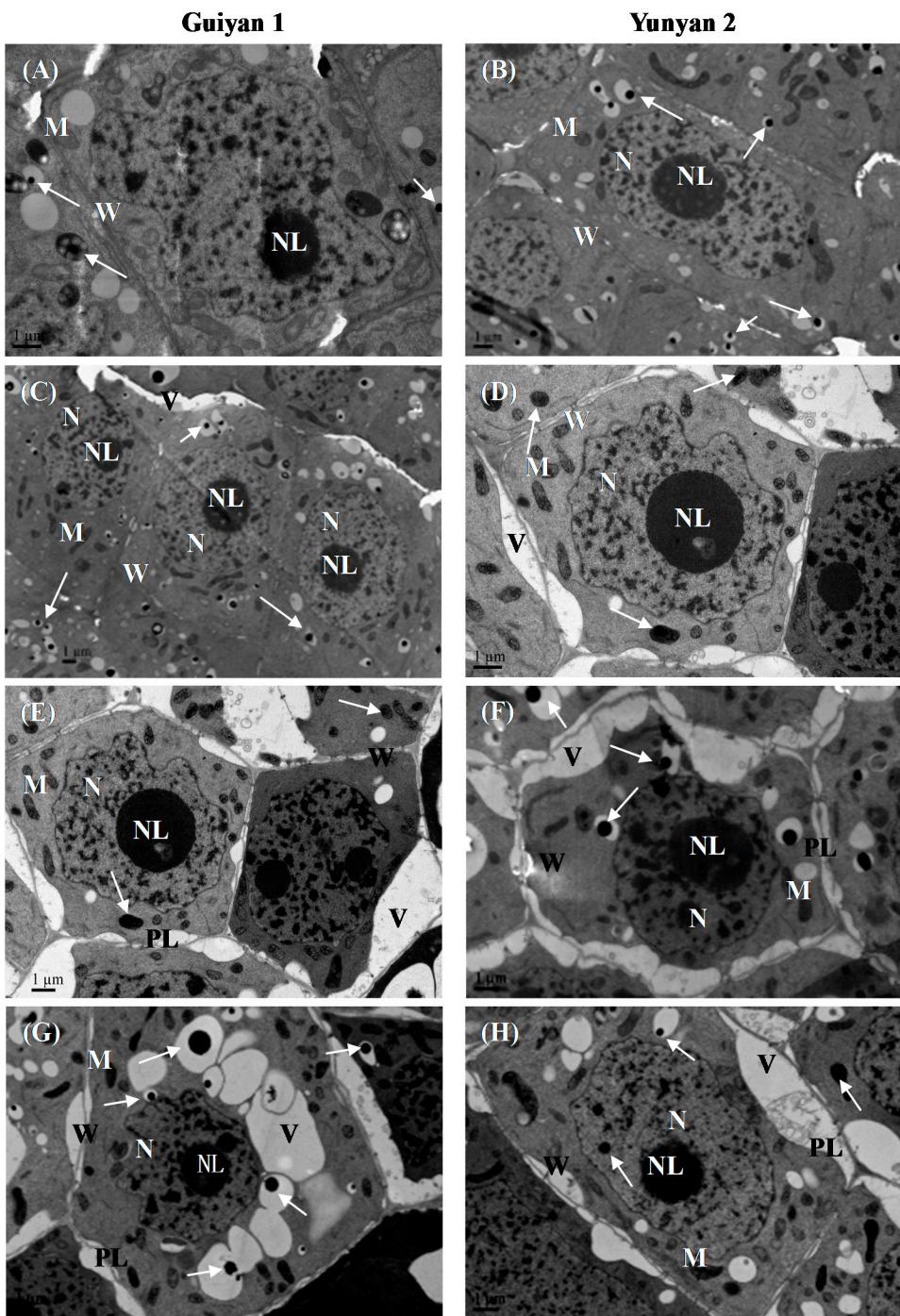


Figure S4. Transmission electron micrograph images of the root tip cells of Guiyan1 (left panel) and Yunyan2 (right panel) after 15 days of Control (A,B), GB (C,D), Cd (E,F), and Cd + GB (G,H) treatments, respectively. Control, GB, Cd, and Cd + GB correspond to BNS + foliar spray of deionized water, BNS + foliar spray of 500 μM GB, BNS + foliar spray of deionized water + 5 μM CdCl_2 , and BNS + foliar spray of 500 μM GB + 5 μM CdCl_2 , respectively. Labels: N, nuclear; NL, nucleolus; V, vacuole; W, cell wall; M, mitochondrion, PL, plasmolysis. The arrows indicate the electron dense granules (EDG). Bar = 1 μm .

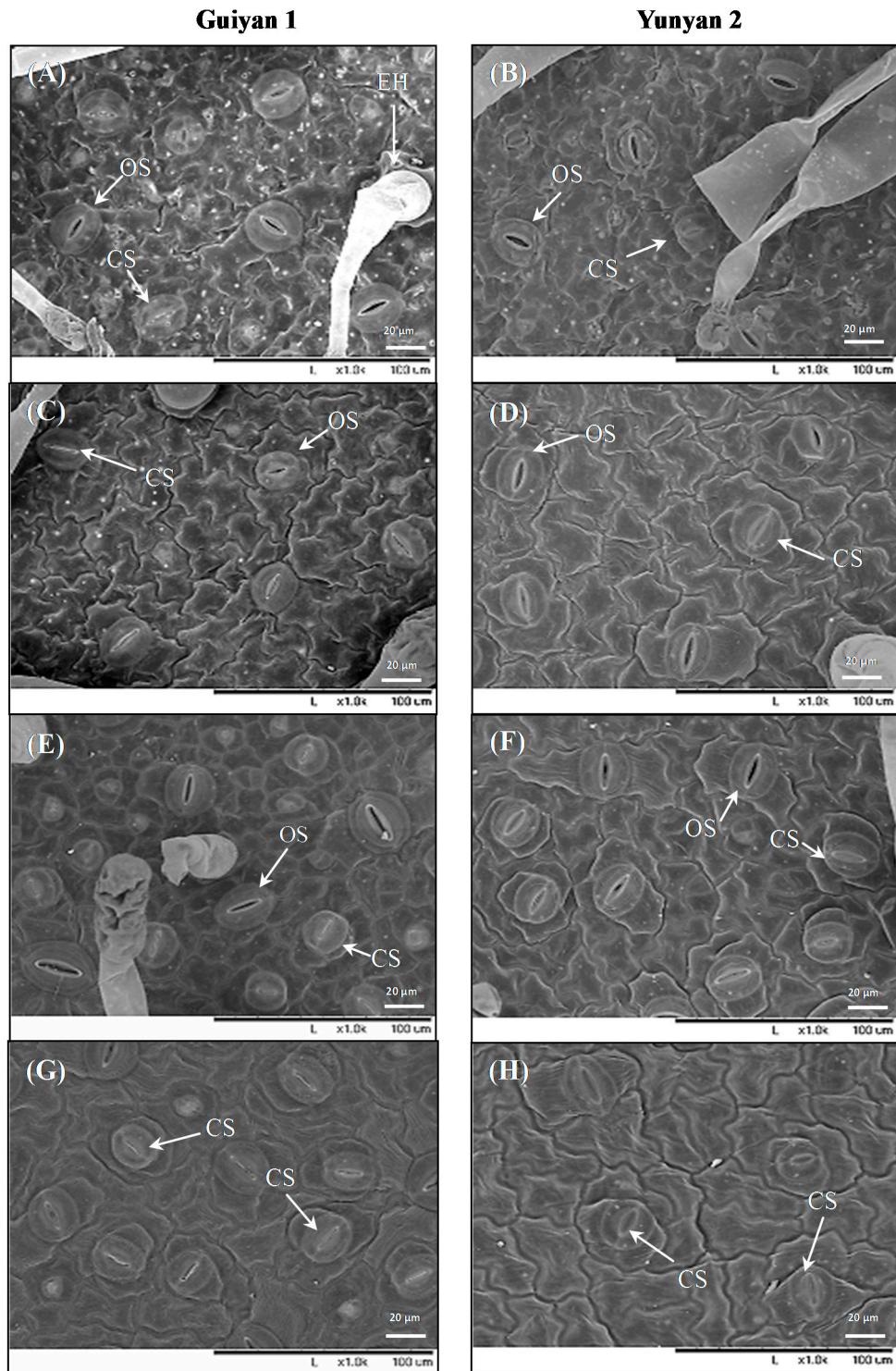


Figure S5. The effects of Cd and GB on the stomatal aperture of Guiyan1 (left panel) and Yunyan2 (right panel) after 15 days of Control (A,B), GB (C,D), Cd (E,F), and Cd + GB (G,H) treatments, respectively. Control, GB, Cd, and Cd + GB correspond to BNS + foliar spray of deionized water, BNS + foliar spray of 500 μM GB, BNS + foliar spray of deionized water + 5 μM CdCl_2 , and BNS + foliar spray of 500 μM GB + 5 μM CdCl_2 , respectively. The photos were detected by a scanning electron microscope. Labels: OS, open stomata with aperture width $\geq 2 \mu\text{m}$; CS, close stomata with aperture width $< 2 \mu\text{m}$; EH, epidermal hair. Bar = 20 μm .