

**Supplementary Fig. S1.** Experimental design and recorded temperature data throughout the research period. (A) The experimental design used for the metabolomic study of salinity (S), high light (HL), and the combination of salinity and high light (S+HL) using Arabidopsis Col, Ler, *aos*, *sid2*, *aba1-1* and *aba2-11* plants. (B) Temperature data obtained in growth chambers during CT and S conditions (left), and HL and S+HL conditions (right). CT, control; HL, high light; S, salinity; S+HL, the combination of salinity and high light.



**Supplementary Fig. S2.** Representative images of Col-0 and *aba2-11* subjected to the combination of salinity (S) and high light (HL) stress. Images were digitally extracted for comparison CT, control; HL, high light; S, salinity; S+HL, the combination of salinity and high light.



**Supplementary Fig. S3.** Leaf damage, survival, growth, and PSII efficiency of Ler and *aba1-1* plants subjected to the combination of salinity (S) and high light (HL) stress. Percentage of leaf damage (A), survival (B), rosette diameter (C), and PSII efficiency (D) of Ler and *aba1-1* plants subjected to S, HL and S+HL. Error bars represent SE. Different letters denote statistical significance at P < 0.05. CT, control; HL, high light; PSII, photosystem II; S, salinity; S+HL, the combination of salinity and high light.



**Supplementary Fig. S4.** Leaf damage, survival, growth, and PSII efficiency of Col, *aos* and *sid2* plants subjected to the combination of salinity (S) and high light (HL) stress. Percentage of leaf damage (A), survival (B), rosette diameter (C), and PSII efficiency (D) of Col *aos* and *sid2* plants subjected to S, HL and S+HL. Error bars represent SE. Different letters denote statistical significance at P < 0.05. CT, control; HL, high light; PSII, photosystem II; S, salinity; S+HL, the combination of salinity and high light.