



Fig. 3. Carbon assimilatory fluxes of a photosynthetic *Arabidopsis* leaf. (A) *Arabidopsis* net flux maps determined under varying light conditions for the LL and HL-ACC conditions. Relative fluxes are presented after normalization to a net CO₂ uptake rate of 100 (SEM, $n = 6$ LL; $n = 4$ HL-ACC). Values shown are the medians of the 95% flux confidence intervals. The estimated SEs are calculated as $(UB95-LB95)/3.92$, where UB95 and LB95 are the upper and lower bounds of each confidence interval, respectively, and 3.92 is the number of SEs that span the 95% confidence interval of a normally distributed random variable. Metabolites compartmentalized to the plastid are denoted by ".p," whereas metabolites compartmentalized to the cytosol are denoted by ".c." (B) Selected relative flux values (as a percentage of net CO₂ assimilation). (C) Comparison of photosynthetic parameters; net CO₂ assimilation is in terms of absolute fluxes ($\mu\text{mol metabolite}\cdot\text{gFW}^{-1}\cdot\text{hr}^{-1}$). AGP, starch synthesis flux; netA, net CO₂ assimilation; SPS, sucrose synthesis flux; Vc, carboxylation flux; Vo, oxygenation flux; Vpr, photorespiratory CO₂ release.