

**Table S4.** Relative amounts of various types of PSII complexes in Col-0, Ws-4, and *Ler-0* accessions. The plants were grown hydroponically for six weeks at an irradiance of 120  $\mu\text{mol photons m}^{-2} \text{s}^{-1}$  and treated for 3 h at an irradiance of 950  $\mu\text{mol photons m}^{-2} \text{s}^{-1}$  (high light) in the absence or presence of lincomycin (LN). Thylakoid membranes were isolated and solubilized mildly with n-dodecyl- $\beta$ -D-maltoside, and the various types of Chl protein complexes were separated by Blue-native gel electrophoresis. As dark control, 16 h dark-adapted plants were used.

Dark-adapted	Col-0	Ws-4	<i>Ler-0</i>
PSII-LHCII supercomplex	20 $\pm$ 2	20 $\pm$ 2	32 $\pm$ 5
PSII core dimer	13 $\pm$ 1	10 $\pm$ 1	10 $\pm$ 2
PSII core monomer	40 $\pm$ 2	39 $\pm$ 2	36 $\pm$ 1
PSII core CP43-less monomer	27 $\pm$ 1	31 $\pm$ 1	22 $\pm$ 1
PSII monomer : PSII dimer	2:1	2:1	1.5:1
High light - LN	Col-0	Ws-4	<i>Ler-0</i>
PSII-LHCII supercomplex	7 $\pm$ 2	4 $\pm$ 2	7 $\pm$ 1
PSII core dimer	14 $\pm$ 2	9 $\pm$ 1	9 $\pm$ 1
PSII core monomer	35 $\pm$ 5	40 $\pm$ 3	36 $\pm$ 2
PSII core CP43-less monomer	44 $\pm$ 5	47 $\pm$ 1	48 $\pm$ 3
PSII monomer : PSII dimer	4:1	7:1	5:1
High light + LN	Col-0	Ws-4	<i>Ler-0</i>
PSII-LHCII supercomplex	5 $\pm$ 2	1 $\pm$ 0*	4 $\pm$ 2
PSII core dimer	15 $\pm$ 2	4 $\pm$ 2*	8 $\pm$ 3
PSII core monomer	35 $\pm$ 3	40 $\pm$ 3	41 $\pm$ 3
PSII core CP43-less monomer	45 $\pm$ 3	55 $\pm$ 3*	46 $\pm$ 3
PSII monomer : PSII dimer	4:1	20:1	7:1

The relative amounts of four types of PSII complexes were determined from the quantification of D1 protein in western blots of Blue-native gels as in Figure 11, and the ratio of PSII monomer-to-dimer was calculated for each accession and condition. Data represent means  $\pm$ SD of three independent preparations. \*, Significantly different from Col-0 and *Ler-0* (Student's t-test  $P < 0.01$ ).