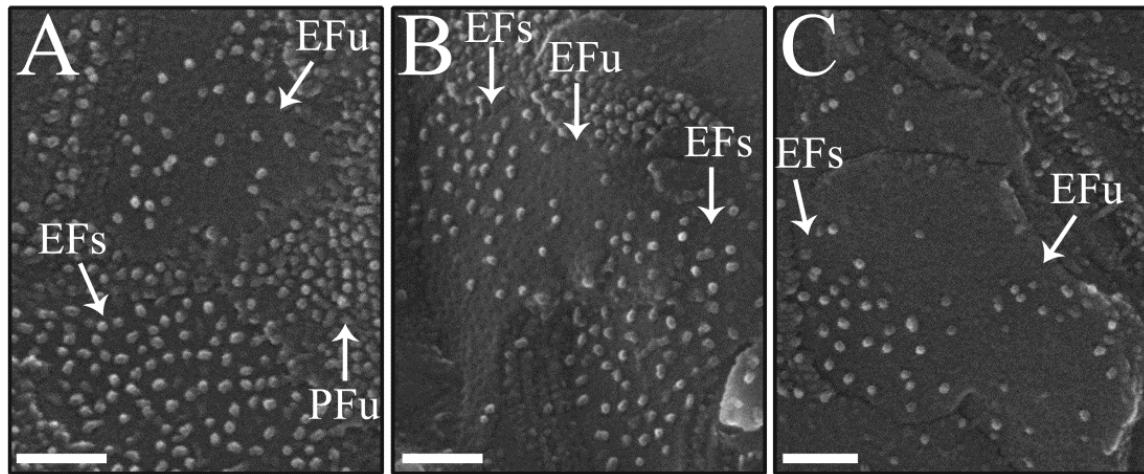


Supplemental Figure 1.



Density of photosystem II complexes in stroma lamellar thylakoid membranes during dehydration

Photosystem II (PSII) complexes in the exoplasmic fracture face of stacked (EFs) and unstacked (EFu) membranes in plants at 100% (A), ~40% (B) and ~20% (C) relative water content. During dehydration, PSII density in the EFu face was 537 ± 200 complexes/ μm^2 (A), 563 ± 189 complexes/ μm^2 (B) and 316 ± 52 complexes/ μm^2 (C) [for comparison see the density of PSII in the EFs face, shown in Figs. 4 and 5]. Note that the background in which PSII complexes are embedded differs between the EFs and EFu. While EFs have a smooth background, EFu is rough due to holes which are imprints of PSI complexes that fracture to the complementary face PFu. In addition to PSI, the protoplasmic fracture face of unstacked membranes (PFu, shown in panel A) contains the cytochrome *b₆f* complex, ATP synthase, as well as some light-harvesting complex II (LHCII). Scale bars: 100 nm.