

**Supplemental data table 2S: Chemicals used for stress conditions**

For construction of spectral libraries, different cultivation conditions were applied. Stress conditions were applied using the chemicals and concentrations listed below.

stress condition	IUPAC name of chemical	ordered as	ordered by
0.1 mM Methylviologen	<i>N,N'</i> -dimethyl-4,4'-bipyridinium dichloride	methyl viologen dichloride hydrate, 98%	sigma-aldrich, St. Louis, USA
10 mM H <sub>2</sub> O <sub>2</sub>	hydrogen peroxide	hydrogen peroxide solution, 30 wt. % in H <sub>2</sub> O	sigma-aldrich, St. Louis, USA
2 mM TMAD	3-(dimethylcarbamoylimino)-1,1-dimethylurea	diamide	sigma-aldrich, St. Louis, USA
0.3 mM BIP	2,2'-bipyridine	2,2'-bipyridyl, ≥ 99%	sigma-aldrich, St. Louis, USA
8% NaCl	sodium chloride	sodium chloride, > 99.8%	Carl Roth GmbH & Co. KG, Karlsruhe, Germany
0.05% glucose	D-glucose	D(+)-glucose	Carl Roth GmbH & Co. KG, Karlsruhe, Germany

