

Table 3. Volumes of subcellular compartments in spinach leaves as evaluated by linear regression analysis ($n = 173$; for subchloroplastic spaces: $n = 25$)

Compartment	Fixed material		Fresh material $\mu\text{L}\cdot(\text{mg Chl})^{-1}$
	%	$\mu\text{L}\cdot(\text{mg Chl})^{-1}$	
<i>Mesophyll:</i>			
Whole Cell	100	316	688 \pm 56
Vacuole	68	215	545 \pm 38
Chloroplast	25.4	80	113 \pm 36
Stroma	14.7	46	65 \pm 21
Thylakoid	8.0	25	36 \pm 11
Starch	2.8	8.8	13 \pm 4
Plastoglobuli	0.23	0.73	1.0 \pm 0.4
Cytosol	5.4	17	24 \pm 9
Mitochondria	0.82	2.6	3.6 \pm 2.3
Nuclei	0.48	1.5	2.1 \pm 0.5
<i>Epidermis:</i>			
Whole Cell	100	15	36 \pm 3
Vacuole	89.2	14	34 \pm 0.8
Chloroplast	1.7	0.26	0.4 \pm 0.3
Cytosol + nuclei	8.7	1.3	1.8 \pm 0.5
Mitochondria	0.5	0.08	0.1 \pm 0.04