

**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