

Table 3. Pigment:protein ratio in different photosynthetic antenna complexes.

Antenna complex type	Protein:pigment	
	Mass ratio	Per pigment molecule (in Da)
Chlorosomes	0.5–2.2	420–1,840
B806-866 complex <sup>a</sup>	3.9–5.8	3,550–5,290
B800-850 LHII	4.4	4,000
B820 LHI	6.7	6,100
Phycobilisomes	~22.4	~12,300

<sup>a</sup>*Chloroflexus aurantiacus*.

Data from Olson, 1998 or calculated from Sidler, 1994, Loach and Parkes-Loach, 1995, Zuber and Cogdell, 1995. Carotenoids have been neglected in these calculations because of their lower numbers as compared to bacteriochlorophylls (B800-850 LHII), their absence in phycobilisomes, and the controversy concerning their functional significance in light-harvesting (chlorosomes). Only antenna complexes which are separate entities from reaction centers were considered. Photosystem I does not contain a distinct antenna structure; the PsaA protein of the reaction center binds 110 chlorophyll *a* molecules.