

## C2P7 (7 parameters)

$$a_{\text{ph}}(\lambda) = A_{\text{ph}}(\lambda)[\text{Chla}]^{E_{\text{ph}}(\lambda)}$$

$$a_{\text{dg}}(\lambda) = \mathbf{a}_{\text{dg}}(440) \exp[-S_{\text{dg}}(\lambda - 440)]$$

$$b_{\text{bp}}(\lambda) = \mathbf{b}_{\text{bp}}(660) \left(\frac{\lambda}{660}\right)^{-S_{\text{bp}}}$$

$$B_p(\lambda) = \mathbf{B}_p(660) \left(\frac{\lambda}{660}\right)^{-S_{\text{Bp}}}$$

## C2P3 (3 parameters)

$$a_{\text{ph}}(\lambda) = A_{\text{ph}}(\lambda)[\text{Chla}]^{E_{\text{ph}}(\lambda)}$$

$$a_{\text{dg}}(\lambda) = \mathbf{a}_{\text{dg}}(440) \exp[-0.018(\lambda - 440)]$$

$$b_{\text{bp}}(\lambda) = \mathbf{b}_{\text{bp}}(660) \left(\frac{\lambda}{660}\right)^{-0.3}$$

$$B_p = 0.01$$

## C1P1 (1 parameter)

$$a_{\text{ph}}(\lambda) = A_{\text{ph}}(\lambda)[\text{Chla}]^{E_{\text{ph}}(\lambda)}$$

$$a_{\text{dg}}(\lambda) = a_{\text{dg}}(440, [\text{Chla}]) \exp[-0.018(\lambda - 440)]$$

$$b_{\text{bp}}(\lambda) = b_p(660, [\text{Chla}]) \left(\frac{\lambda}{660}\right)^{-S_{\text{bp}}([\text{Chla}])}$$

$$B_p = [0.02 + 0.01(0.5 - 0.25 \log_{10}[\text{Chla}])]$$