

Level	Parameter	Model	Type
0	$R_{\text{rs}}^{0-}(\lambda)$	$R_{\text{rs}}^{0-}(\lambda) = \frac{R_{\text{rs}}^{0+}(\lambda)}{0.52+0.17\times} R_{\text{rs}}^{0+}(\lambda)$	Semi-analytical
1A	$u(\lambda)$	$u(\lambda) = \frac{-g_0+[g_0^2+4\times g_1 \times R_{\text{rs}}^{0-}(\lambda)]^{0.5}}{2\times g_1}$ $\rho = \log_{10} \left(\frac{R_{\text{rs}}^{0-}(\lambda_0)}{R_{\text{rs}}^{0-}(671)} \right)$ $g_0 = 0.0788 \text{ and } g_1 = 0.2379 \text{ for } \rho < 0.25$ $g_0 = 0.0895 \text{ and } g_1 = 0.1247 \text{ for } \rho \geq 0.25$	Semi-analytical
1B	$a_{\text{tnw}}(\lambda_0)$	$a_{\text{tnw}}(\lambda_0) = \begin{cases} 10^{(0.139-1.788\times\rho+0.490\times\rho^2)} & \text{if } \rho < 0.25 \\ 10^{(0.406-2.940\times\rho+0.928\times\rho^2)} & \text{if } \rho \geq 0.25 \end{cases}$	Empirical
	$\lambda_0 = 551 \text{ or } 555$	$\rho = \log_{10} \left(\frac{R_{\text{rs}}^{0-}(\lambda_0)}{R_{\text{rs}}^{0-}(\lambda_1)} \right)$	
	$\lambda_1 = 671$		
1C 0	$b_{\text{btnw}}(\lambda_0)$	$b_{\text{btnw}}(\lambda_0) = \frac{(a_{\text{tnw}}(\lambda_0)+a_w(\lambda_0))\times u(\lambda_0)}{1-u(\lambda_0)} - b_{\text{bw}}(\lambda_0)$	Analytical
1	η	$\eta = -0.566 - 1.395 \times \log_{10}(b_{\text{btnw}} 555)$	Empirical
2	$b_{\text{bt}}(\lambda)$	$b_{\text{bt}}(\lambda) = b_{\text{bw}}(\lambda) + b_{\text{btnw}}(\lambda_0) \times \left(\frac{\lambda_0}{\lambda} \right)^\eta$	Semi-analytical
3	$a_t(\lambda)$	$a_t(\lambda) = b_{\text{bt}}(\lambda) \times \left(\frac{1-u(\lambda)}{u(\lambda)} \right)$	Analytical
SPM models			
This study	$SPM = (103.07 \times b_{\text{btnw}} 532) + 0.24$		Empirical
D'Sa et al. (2007)	$SPM = (106.93 \times b_{\text{btnw}} 555) + 0.61$		Empirical
Nechad et al. (2010)	$SPM = \left(\frac{A^\rho \times \rho_w}{1-\rho_w/C^\rho} \right) + B^\rho;$ where $A^\rho = 373.79 \text{ mg L}^{-1}$, $B^\rho = 1.47 \text{ mg L}^{-1}$, $C^\rho = 0.1747$ for $\lambda = 670 \text{ nm}$		Empirical