**Table 3**. Empirical relationships obtained between the particulate backscattering coefficient  $(b_{bp})$  and the concentration of chlorophyll a (Chla) for the different layers of the water column considered in this study. We also indicate the associated statistics: Root Mean Squared Error (RMSE) and coefficient of determination  $R^2$  for the significance level of p < 0.001

Empirical relationship	Layer in the water column	$R^2$	RMSE	Number of data
$b_{bp}(700) = 0.00174 \text{ x (Chl}a)^{0.360}$	$Z_{ m pd}$	0.6311	0.000942	5253
$b_{bp}(700) = 0.00171x (Chla)^{0.373}$	MLD	0.6167	0.000932	8743
$b_{bp}(700) = 0.00147x (Chla)^{0.753}$	DCM	0.5667	0.00104	1628
$b_{bp}(700) = 0.00181 \text{ x (Chl}a)^{0.605}$	1.5 x Z <sub>eu</sub>	0.7443	0.000967	5250