$$G(w, w0, P) := \frac{1}{\pi} \cdot \frac{\gamma(P)}{(w - w0)^2 + \gamma(P)^2}$$

$$Jp(J) := J - 1 \qquad Jr(J) := J + 1$$

$$p(J, M) := \sqrt{\frac{J^2 - M^2}{4 \cdot J^2 - 1}} \qquad r(J, M) := \sqrt{\frac{(J + 1)^2 - M^2}{(2 \cdot J + 1) \cdot (2J + 3)}}$$

$$\omega p(J) := B \cdot [Jp(J) \cdot (Jp(J) + 1) - J \cdot (J + 1)] + (\omega e - 2 \cdot \omega e \cdot xe) - D \cdot J^2 \cdot \left(-4 \cdot J^2\right)$$

$$\omega r(J) := B \cdot [Jr(J) \cdot (Jr(J) + 1) - J \cdot (J + 1)] + (\omega e - 2 \cdot \omega e \cdot xe) - D \cdot 2 \cdot (J + 1)^2$$

$$wJ(Jmax, J, T) := \frac{(2 \cdot J + 1) \cdot \exp\left[\frac{-B \cdot J \cdot (J + 1)}{T}\right]}{\sum_{J = 0}^{Jmax} \left[(2 \cdot J + 1) \cdot \exp\left[\frac{-B \cdot J \cdot (J + 1)}{T}\right]\right]}$$

$$\sigma abs2(w, Jmax, T, P) := \frac{2(\pi \cdot q \cdot \xi)^2}{3} \cdot \left[\sum_{J = 1}^{Jmax} \left[wJ(Jmax, J, T) \cdot \frac{J}{2 \cdot J + 1} \cdot (\omega p(J) \cdot G(w, \omega p(J), P))\right] + \sum_{J = 0}^{Jmax} \left[wJ(Jmax, J, T) \cdot \frac{J + 1}{2 \cdot J + 1} \cdot (\omega r(J) \cdot G(w, \omega r(J), P))\right]\right]$$

$$EG(t, w, \tau, E0) := E0 \cdot \exp\left(\frac{-t^2}{2 \cdot \tau^2}\right) \cdot \cos(w \cdot t)$$

$$Dt(t, w, \omega, \tau, E0) := \left(\left| \int_{-10^5}^{t} e^{i \cdot w \cdot t1} \cdot EG(t1, \omega, \tau, E0)\, dt1 \right| \right)^2$$

$$WPenv(t, Jmax, T, P, \omega, \tau, E0) := \frac{c}{4 \cdot \pi^2} \cdot \int_{0.005}^{0.012} \sigma abs2(w, Jmax, T, P) \cdot \frac{Dt(t, w, \omega, \tau, E0)}{w}\, dw$$

$\xi := 0.065$ $\quad T := 9 \cdot 10^{-4}$ $\quad B := 8.797 \times 10^{-6}$ $\quad \omega ex := 6.062 \times 10^{-5}$ $\quad \gamma 0 := 10^{-6}$ $\quad Jmax := 30$

$q := 0.44$ $\quad \omega e := 9.891 \times 10^{-3}$

$D := 2.79 \cdot 10^{-11}$ $\quad P := 1$

$E0 := 10^{-2}$

$xe := 6.124 \cdot 10^{-3}$

$t := -5000, -4900 .. 9900$