

Supplementary Material SM1.

Tailored PSO algorithm used to fit the experimental data

Initialize the control parameters $N, C_1, C_2, W_{min}, W_{Max}, V_{min}, V_{Max}, N_{iter}$

Initialize the N particles

While iteration $< N_{iter}$

For each particle

Calculate the fitness

Actualize the particle's optimal

Actualize the population's optimal

Actualize the particle's inertia

For each particle

Actualize the particle's velocity

Actualize the particle's position

Obtain a mean mobile of the particle's dimensions (for smoothness)

Return the population's optimal as the solution found
