

## **Description of additional supplementary items**

### **Supplementary Dataset 1. (separate file)**

This file contains the source data for Fig. 1 and results of statistical analyses of growth parameters conducted with one-way ANOVA followed by Tukey's multiple comparison tests.

### **Supplementary Dataset 2. (separate file)**

This file contains the source data for Fig. 2 and results of statistical analyses of effective quantum yield of PSII ( $\Phi_{\text{PSII}}$ ) and oxygen production rates conducted with one-way ANOVA followed by Tukey's multiple comparison tests.

### **Supplementary Dataset 3. (separate file)**

This file contains a list of the full set of *Prochlorococcus* MIT9312 genes for which significant differential expression was observed following short-term exposure to HDPE or PVC leachate (relative to AMP1 control).

### **Supplementary Dataset 4. (separate file)**

This file contains a list of the full set of *Prochlorococcus* NATL2A genes for which significant differential expression was observed following short-term exposure to HDPE or PVC leachate (relative to AMP1 control).

### **Supplementary Dataset 5. (separate file)**

This file contains the list of database matches for components strongly enriched in PVC and HDPE leachate (50 g/L plastic in AMP1) compared to corresponding control (AMP1) detected by LC-MS/MS.

### **Supplementary Dataset 6. (separate file)**

This file provides the unfiltered peak data from the LC-MS analysis of AMP1, PVC and HDPE leachate chemistry