**Collection protocol:**

Based on pre-experimental axenic growth curves, harvests occurred at days 3 (28°C), 4 (20°C), and 6 (14°C), starting 7 h into the light cycle. At each harvest, subsamples of 600 mL were filtered onto 2.0-µm Isopore filters (Millipore, Burlington, MA) for diatom endometabolite analysis and stored in 50-mL centrifuge tubes at -80°C.