

Figure S1. Example of fit of the relationship between the true OD (measured at 750 nm using a lambda 20 UV/Vis Perkin-Elmer Spectrophotometer) and the apparent OD720 signal provided by the Multi-cultivator. *Scenedesmus vacuolatus* cultivated in photoautotrophic conditions.

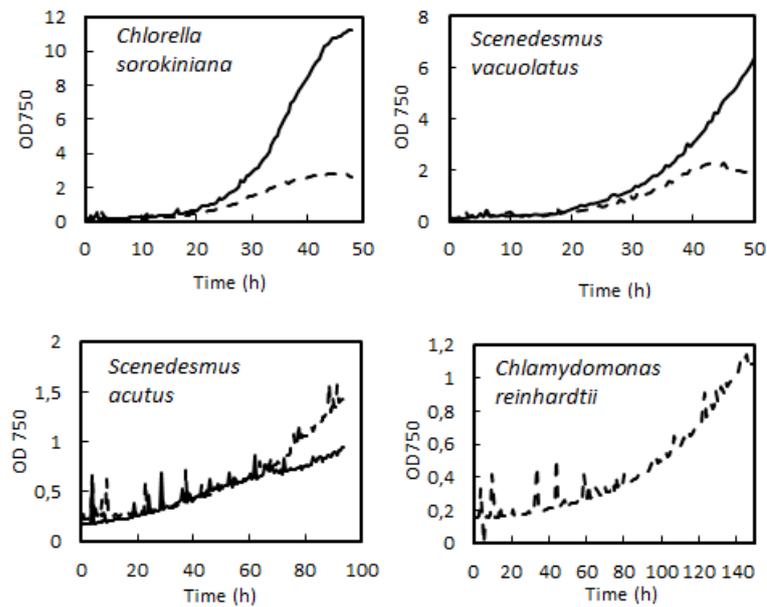


Figure S2. Typical OD heterotrophic growth curves on glucose 15 g.L⁻¹ (continuous lines) or acetate 2 g.L⁻¹ (dashed lines) in darkness.

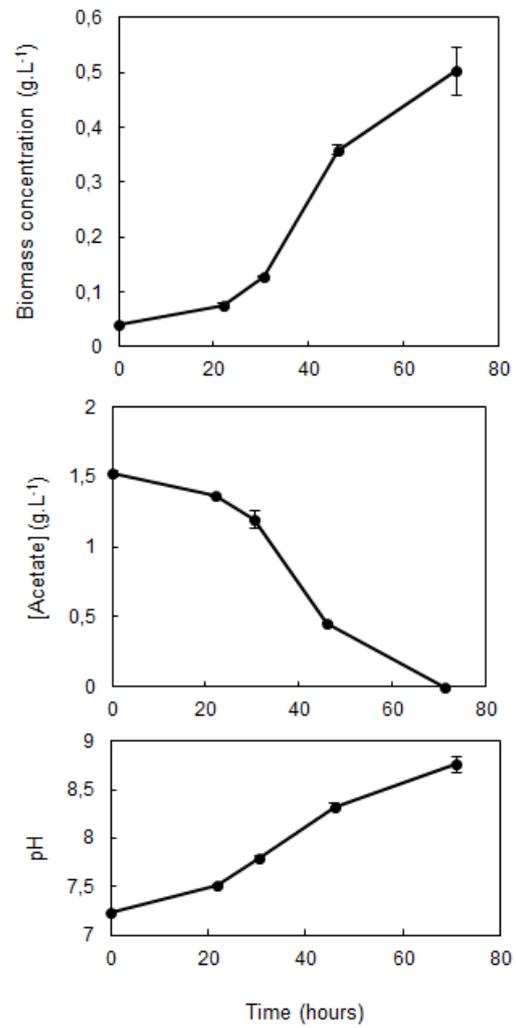


Figure S3. Acetate consumption and pH rise during heterotrophic growth of *Scenedesmus vacuolatus* on acetate (batch experiments conducted in well-aerated and agitated flasks at 25°C).