

Chlorophyll Measurement of Cells in a Culture

- Spin down 1 ml of culture in a microcentrifuge in duplicate
- Discard supernatant. Be sure to remove all medium without losing cells. Note that some strains pellet differently than others so be careful not to lose cells.
- Resuspend pellet in 1 ml 80% Acetone/20% Methanol by vigorous vortexing. It is important to completely resuspend the pellet so that all green is extracted.
- Spin 5 minutes in microcentrifuge, maximum speed, 4°C

[Note: pellet should be white, if still green, mix and spin again]

- Measure absorbance of supernatant at 750 nm, 663.6 nm and 646.6 nm against a solvent blank. Do not use a plastic cuvette. (Acetone will dissolve it.)
- subtract value of 750 nm reading from value of 663.6 nm and 646.6 nm
- Chlorophyll concentration (in mg/ml):

$$0.01776 \times E_{646.6} + 0.00734 \times E_{663.6}$$