

## iGEM2016 – Microbiology – BMB – SDU

<p><b>Project type:</b> Plastic  <b>Project title:</b> Characterizing and optimizing PHB production in <i>E. coli</i>  <b>Sub project:</b>              1. Comparing media for growth of plast producing bacteria</p>	<p><b>Creation date:</b> 2016.09.26   <b>Written by:</b> Joel   <b>Performed by:</b> Joel Mario Vej-Nielsen &amp; Jakob Rønning</p>
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### 1. SOPs in use.

SOP0029 – 2xYT media

SOP0030 – TB media

### 2. Purpose.

Determining the ideal media for synthesis of poly- $\beta$ -hydroxybutyrate

### 3. Overview.

Day	SOPs	Experiments
1	SOP0029 SOP0030	2xYT media 1.5 L was produced for the growth experiment TB media 1.5 L was produced for the growth experiment As well as 1.5 L of LB was produced
2	SOP0001	ON culture
3	None	Final $OD_{600}$ measurement after x hours.
4	SOP0029 SOP0030	600ml was produced to determine effect on PHB synthesis 600ml was produced to determine effect on PHB synthesis
5	SOP0001	ON culture of PRxx for inoculation of other media.

### 4. Materials required.

#### Materials in use

Name	Components (Concentrations)	Manufacture r / Cat. #	Room	Safety considerations
Tryptone			Chemical room	

<b>Yeast extract</b>		Chemical room
<b>NaCl</b>		Chemical room
<b>Distilled water</b>		Chemical room
<b>Glycerol</b>		Chemical room
<b>10x TB phosphate</b>	2.31g $KH_2PO_4$ and 12.54g $K_2HPO_4$ in 90ml $H_2O$ adjust to 100ml with $H_2O$	Chemical room
<b>Autoclave</b>		Chemical room
<b>pH-meter</b>		Chemical room
<b>Scale</b>		Chemical room
<b>Incubator</b>		Incubation room
<b>Photospectrometer</b>		Incubation room

## 5. Other

## 6. Experiment history.

<b>Date (YY.MM.DD)</b>	<b>SOPs</b>	<b>Alterations to SOPs and remarks to experiments</b>
16.10.16	SOP0029	1.5 L 2xYT was produced for the growth experiment
16.10.16	SOP0030	1.5 L TB media was produced for the growth experiment
16.10.16	-	1.5 L LB media was produced for the growth experiment
16.10.17	-	OD was measured at the beginning of the experiment and again after an hour. The measurements were made approximately every half hour for 7 hours.
16.10.18		OD was measured at the beginning of the experiment and again after an hour. The measurements were made approximately every half hour for 7 hours.

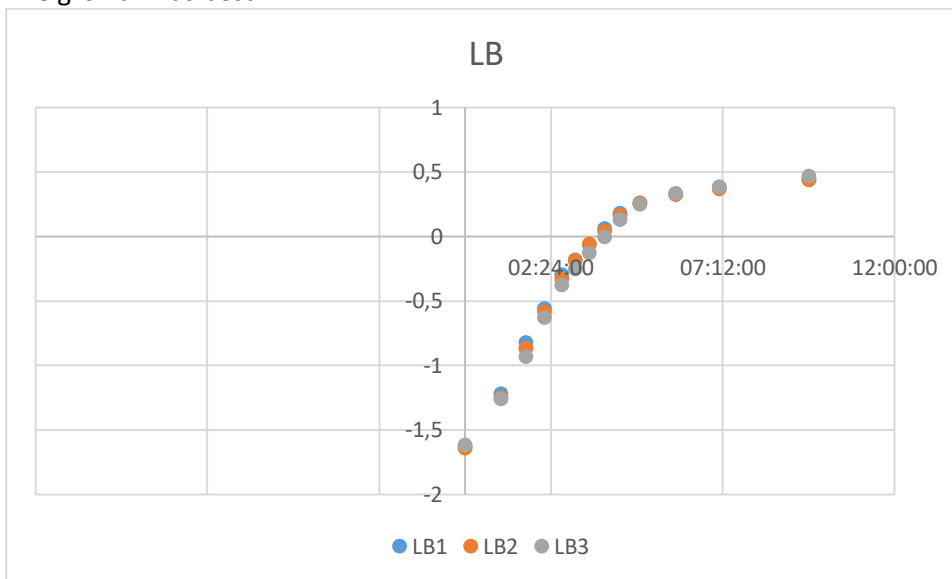
## 7. Sample specification.

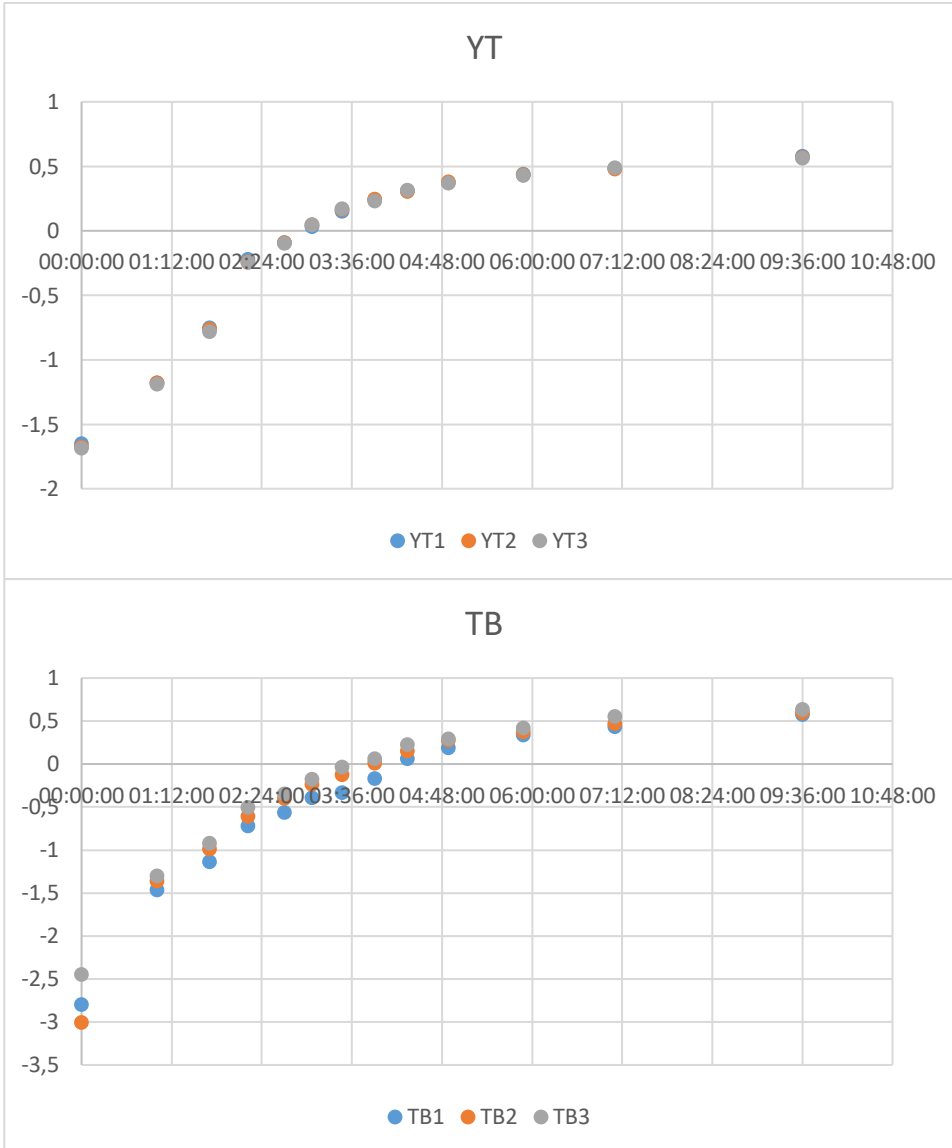
## 8. Remarks on setup.

Measurements were made with 2 min. interval.

## 9. Results and conclusions.

The growth was best in 2xYT.





## 10. Appendixes

