

## WEEK 5

### 4.29 Juan Luo

#### Error analysis of 96-well plate and deep-hole plate

As we can see from the data, there was no obvious difference between deep-hole plate and 96-well plate under shaker culture condition. Most of the differences in the experimental group were within the predicted range. With the complexity of the system, the data instability is stronger. A single group (three) data generally have a large error. Therefore, it is speculated that experimental equipment and operation errors may lead to data errors.

Deep hole plate	0.0269	0.0263	0.0287	Deep hole plate	20910	18588	20225
	0.0269	0.0269	0.0276		19761	19382	19959
	0.0263	0.0261	0.028		19378	17278	19913
96-well plates	0.0266	0.0272	0.0301	96-well plates	19022	17147	18344
	0.0319	0.0295	0.0735		18521	18967	20049
	0.0272	0.0284	0.0316		18874	17640	18712

Figure 1 The OD<sub>600</sub> (left) and fluorescence (right) values of deep hole plate and 96-well plate containing LB liquid

Deep hole plate	1.0633	1.068	1.0897	Deep hole plate	37423	33915	36528
	1.113	1.0667	1.1267		37716	36574	36942
	1.0222	1.0653	0.9817		37622	32265	34787
96-well plates	1.052	1.2602	1.2143	96-well plates	30945	30098	30730
	0.8569	1.005	1.1107		28699	28337	30392
	1.1628	1.1338	1.0974		29392	27285	29285

Figure 2 The OD<sub>600</sub> (left) and fluorescence (right) values of deep hole plate and 96-well plate containing LB liquid and wild type bacteria

Deep hole plate	1.0331	0.8934	1.1464	Deep hole plate	42132	37551	50224
	1.0554	0.884	1.1086		42112	39694	43736
	1.0277	1.025	1.1196		42204	39043	44804
96-well plates	0.9545	1.0809	1.2496	96-well plates	35684	35187	39265
	1.0505	0.9588	0.7216		36602	34217	30210
	1.0566	1.2652	1.224		35468	34773	40091

Figure 3 The OD<sub>600</sub> (left) and fluorescence (right) values of deep hole plate and 96-well plate containing LB liquid, 4HB and wild type bacteria