

Evaluate Design**Factors**

Name	Role	Values
Block	Blocking	1 2
Pyrophosphatase	Continuous	0.02 0.5
Spermidine	Continuous	0 5
Surfactant	Continuous	0 0.05
Surfactant Identity	Categorical	Triton Tween
DMSO	Continuous	0 10
Betaine	Continuous	0 1.5

Model

Intercept
 Pyrophosphatase
 Spermidine
 Surfactant
 Surfactant Identity
 DMSO
 Betaine
 Block

Alias Terms**Name**

Pyrophosphatase*Spermidine
 Pyrophosphatase*Surfactant
 Pyrophosphatase*Surfactant Identity
 Pyrophosphatase*DMSO
 Pyrophosphatase*Betaine
 Spermidine*Surfactant
 Spermidine*Surfactant Identity
 Spermidine*DMSO
 Spermidine*Betaine
 Surfactant*Surfactant Identity
 Surfactant*DMSO
 Surfactant*Betaine
 Surfactant Identity*DMSO
 Surfactant Identity*Betaine

Evaluate Design**Alias Terms**

DMSO*Betaine
 Pyrophosphatase
 Spermidine
 Surfactant
 Surfactant Identity
 DMSO
 Betaine

Design

Run	Block	Pyrophosphatase	Spermidine	Surfactant	Surfactant Identity	DMSO	Betaine
1	1	0.02	0	0.05	Triton	10	0.75
2	1	0.02	0	0.05	Tween	0	1.5
3	1	0.02	5	0.025	Tween	0	0
4	1	0.26	0	0	Triton	0	0
5	1	0.26	2.5	0.025	Triton	5	0.75
6	1	0.26	2.5	0.025	Tween	5	0.75
7	1	0.26	5	0.05	Tween	10	1.5
8	1	0.5	0	0.025	Triton	10	1.5
9	1	0.5	5	0	Triton	10	0
10	1	0.5	5	0	Tween	0	0.75
11	2	0.02	0	0	Tween	10	0
12	2	0.02	2.5	0	Triton	0	1.5
13	2	0.02	5	0	Triton	10	1.5
14	2	0.02	5	0.05	Triton	5	0
15	2	0.5	0	0	Tween	5	1.5
16	2	0.5	0	0.05	Tween	0	0
17	2	0.5	2.5	0.05	Tween	10	0
18	2	0.5	5	0.05	Triton	0	1.5

Design Evaluation**Power Analysis**

Significance Level 0.05
 Anticipated RMSE 1

Evaluate Design**Design Evaluation****Power Analysis**

Term	Anticipated	
	Coefficient	Power
Intercept	1	0.966
Pyrophosphatase	1	0.916
Spermidine	1	0.916
Surfactant	1	0.916
Surfactant Identity	1	0.955
DMSO	1	0.916
Betaine	1	0.916
Block	1	0.966

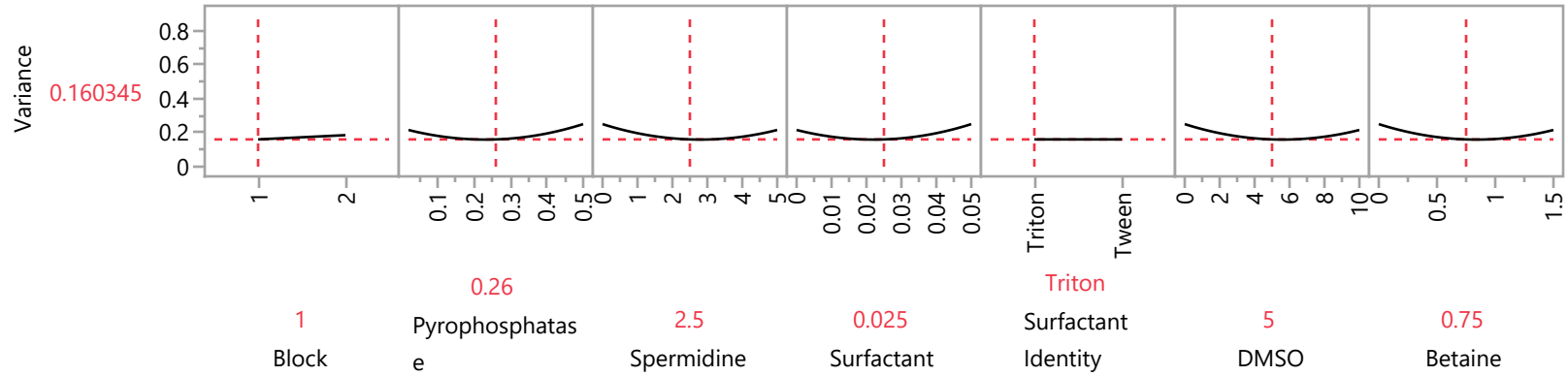
Design and Anticipated Responses

Anticipated Response	Block	Pyrophosphatase	Spermidine	Surfactant	Surfactant Identity	DMSO	Betaine
3	1	0.02	0	0.05	Triton	10	0.75
0	1	0.02	0	0.05	Tween	0	1.5
-1	1	0.02	5	0.025	Tween	0	0
-1	1	0.26	0	0	Triton	0	0
3	1	0.26	2.5	0.025	Triton	5	0.75
1	1	0.26	2.5	0.025	Tween	5	0.75
5	1	0.26	5	0.05	Tween	10	1.5
5	1	0.5	0	0.025	Triton	10	1.5
4	1	0.5	5	0	Triton	10	0
1	1	0.5	5	0	Tween	0	0.75
-4	2	0.02	0	0	Tween	10	0
-1	2	0.02	2.5	0	Triton	0	1.5
2	2	0.02	5	0	Triton	10	1.5
1	2	0.02	5	0.05	Triton	5	0
-1	2	0.5	0	0	Tween	5	1.5
-2	2	0.5	0	0.05	Tween	0	0
1	2	0.5	2.5	0.05	Tween	10	0
4	2	0.5	5	0.05	Triton	0	1.5

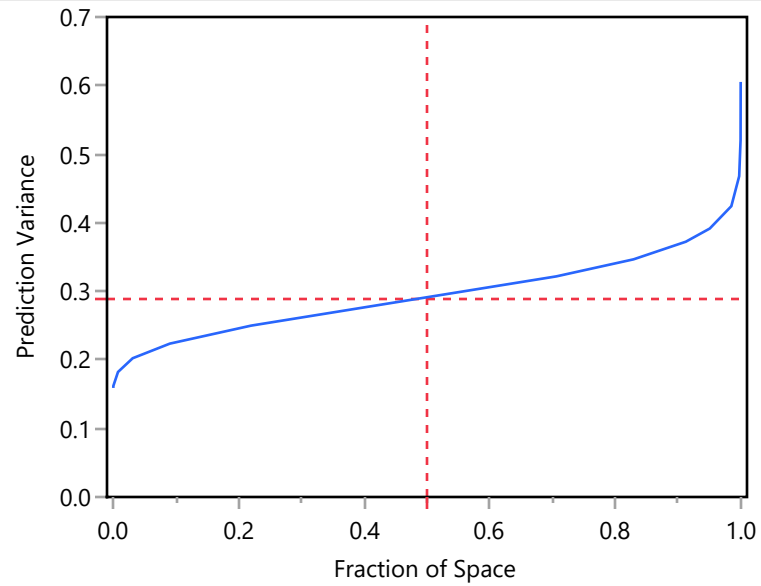
Evaluate Design

Design Evaluation

Prediction Variance Profile



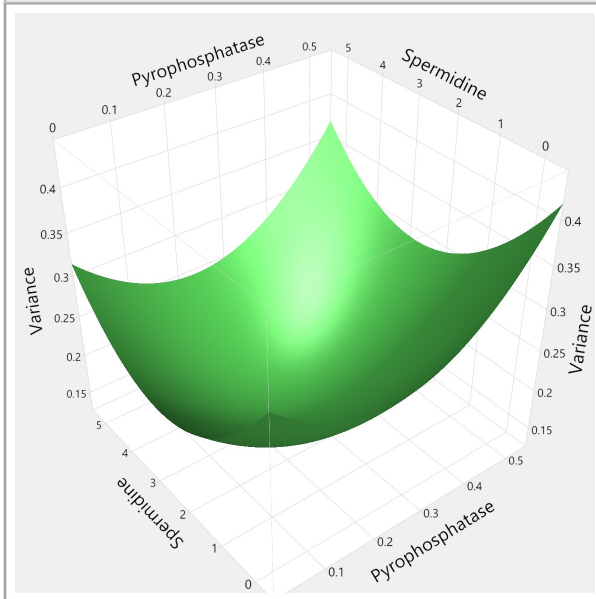
Fraction of Design Space Plot



Evaluate Design

Design Evaluation

Prediction Variance Surface



Response Grid Slider

0.2875

Independent Variables

X	Y		Value Grid
<input type="radio"/>	<input type="radio"/>	Block	0
<input checked="" type="radio"/>	<input type="radio"/>	Pyrophosphatase	0.26 <input type="checkbox"/>
<input type="radio"/>	<input checked="" type="radio"/>	Spermidine	2.5 <input type="checkbox"/>
<input type="radio"/>	<input type="radio"/>	Surfactant	0.025
<input type="radio"/>	<input type="radio"/>	Surfactant Identity	0
<input type="radio"/>	<input type="radio"/>	DMSO	5
<input type="radio"/>	<input type="radio"/>	Betaine	0.75

Estimation Efficiency

Term	Fractional Increase in CI Length	Relative Std Error of Estimate
Intercept	0.006	0.237
Pyrophosphatase	0.144	0.27
Spermidine	0.144	0.27
Surfactant	0.144	0.27
Surfactant Identity	0.042	0.246
DMSO	0.144	0.27
Betaine	0.144	0.27
Block	0.006	0.237



Evaluate Design

Design Evaluation

Alias Matrix

Effect	Pyrophosphatase*Spermidine	Pyrophosphatase*Surfactant	Pyrophosphatase*Surfactant	
			Identity	Pyrophosphatase*DMSO
Intercept	-0.03	0.05	-0.15	-0.02
Pyrophosphatase	0	0	0	0
Spermidine	0	0	0	0
Surfactant	0	0	0	0
Surfactant Identity	0	0	0	0
DMSO	0	0	0	0
Betaine	0	0	0	0
Block	0.225	-0.45	0.35	0.225

Color Map on Correlations

Pyrophosphatase
 Spermidine
 Surfactant
 Surfactant Identity
 DMSO
 Betaine
 Block
 Pyrophosphatase*Spermidine
 Pyrophosphatase*Surfactant
 Pyrophosphatase*Surfactant Identity
 Pyrophosphatase*DMSO
 Pyrophosphatase*Betaine
 Spermidine*Surfactant
 Spermidine*Surfactant Identity
 Spermidine*DMSO
 Spermidine*Betaine
 Surfactant*Surfactant Identity
 Surfactant*DMSO
 Surfactant*Betaine
 Surfactant Identity*DMSO
 Surfactant Identity*Betaine
 DMSO*Betaine
 Pyrophosphatase
 Spermidine
 Surfactant
 Surfactant Identity
 DMSO
 Betaine

		Spermidine*Surfactant				Surfactant*Surfactant	
Pyrophosphatase*Betaine	Spermidine*Surfactant	Identity	Spermidine*DMSO	Spermidine*Betaine	Identity	Identity	Identity
0	0.025	0.175	0	0.025			-0.1
0	0	0	0	0			0
0	0	0	0	0			0
0	0	0	0	0			0
0	0	0	0	0			0
0	0	0	0	0			0
0	0	0	0	0			0
0	-0.23	-0.58	0	-0.23			-0.1

		Surfactant	Surfactant					Surfactant		
Surfactant*DMSO	Surfactant*Betaine	Identity*DMSO	Identity*Betaine	DMSO*Betaine	Pyrophosphatase	Spermidine	Surfactant	Identity	DMSO	
-0.03	-0.05	0.075	0.15	-0.02	0	0	0	0	0	0
0	0	0	0	0	1	0	0	0	0	0
0	0	0	0	0	0	1	0	0	0	0
0	0	0	0	0	0	0	1	0	0	0
0	0	0	0	0	0	0	0	1	0	0
0	0	0	0	0	0	0	0	0	1	0
0	0	0	0	0	0	0	0	0	0	1
0	0	0	0	0	0	0	0	0	0	0
0.225	0.45	0.325	-0.35	0.225	0	0	0	0	0	0

Betaine
0
0
0
0
0
0
0
1
0

Evaluate Design

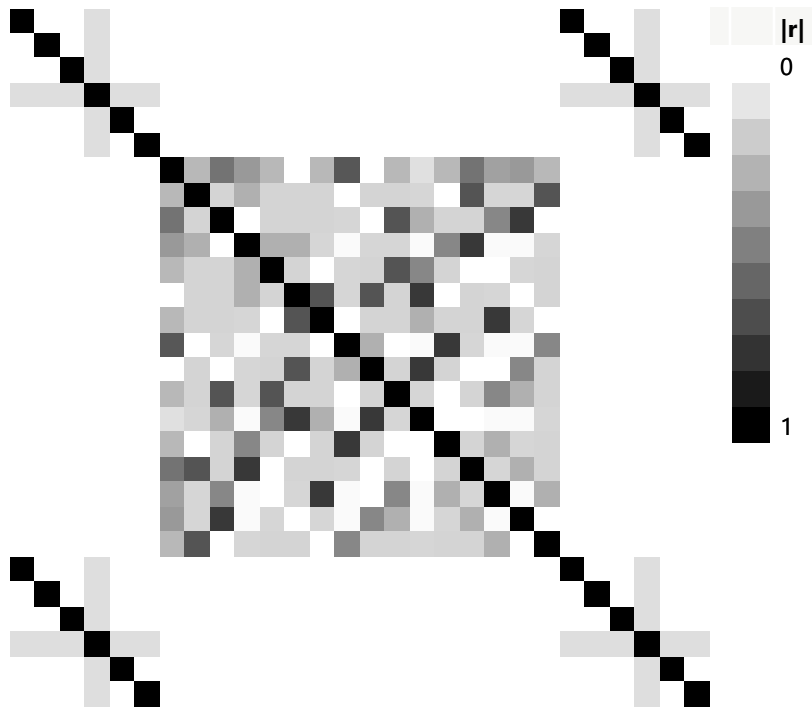
Design Evaluation

Color Map on Correlations

Pyrophosphate
Spermidine
Surfactant
Surfactant Identity
DMSO
Betaine
Block

Pyrophosphate*Spermidine
Pyrophosphate*Surfactant
Pyrophosphate*Surfactant Identity
Pyrophosphate*DMSO
Pyrophosphate*Betaine
Spermidine*Surfactant
Spermidine*Surfactant Identity
Spermidine*DMSO
Spermidine*Betaine
Surfactant*Surfactant Identity
Surfactant*DMSO
Surfactant*Betaine
Surfactant Identity*DMSO
Surfactant Identity*Betaine
DMSO*Betaine

Pyrophosphate
Spermidine
Surfactant
Surfactant Identity
DMSO
Betaine





Evaluate Design**Design Evaluation****Design Diagnostics**

D Efficiency	84.4542
G Efficiency	73.42602
A Efficiency	82.89626
Average Variance of Prediction	0.293945
Design Creation Time (seconds)	0