a.

Provide Factor Details

D-Optimal Designs are supported for any number of factors, which can be continuous discrete, categorical, or blocks. For continuous factors, provide the upper and lower limits as comma separated values, e.g., -1, 1. For discrete, categorical, or blocking factors, provide the allowable values as comma separated values. Note: if blocking factors are included, it is recommended to choose a number of runs that is divisible by the number of blocks.

All entiries in the table below must be completed. Factor Names can only contain letters, numbers, and underscores. Do NOT use spaces or special characters in the factor names.

Note: Add or remove rows by right clicking on a row.

	Factor Names	Factor Type	Level Values
1	Temperature	Continuous	5, 25
1	Reaction_Duration	Continuous	30, 120
1	Solvent	Categorical	Ethanol, Acetone, Octane
1	Number_Additions	Discrete	2, 4, 8
1	Concentration_A	Continuous	50, 100

Next Cancel

b.

Design Details

Selected Design: D-Optimal

Factor Names	Factor Type	Level Values
Temperature	Continuous	5, 25
Reaction_Duration	Continuous	30, 120
Solvent	Categorical	Ethanol, Acetone, Octane
Number_Additions	Discrete	2, 4, 8
Concentration_A	Continuous	50, 100

For a D-Optimal design, it's essential to identify the effects you wish to estimate in advance. Please use the interface below to select all relevant effects, including main effects, interactions, quadratic terms, and any other higher-order effects.

Main Effects | 2-Way Interactions | Quadratics

Add | Create Interaction | Remove

Factor:

Temperature
Reaction_Duration
Solvent
Number_Additions
Concentration_A

Selected Effects:

Concentration_A
Number_Additions
Reaction_Duration
Solvent
Temperature
Number_Additions:Concentration_A
Reaction_Duration:Concentration_A
Reaction_Duration:Number_Additions

Number of Runs: 40

Min Runs: 32 **Max Runs: 72**

Randomize Runs:

Back Create Cancel