

Opti-Matrix Maker™ Optimization Liquid Formulation Robot

Create optimization screens automatically right at your own lab bench.

Get an initial hit then create an optimization screen right in your lab. No more measuring or pipetting! Use the stock solutions you have in your own lab. Dispenses 96 formulations in a matrix using water and up to 10 stock solutions. Same patented technology as the robust, time-tested Matrix Maker, but is small enough to work in your own lab.



 Emerald BioSystems

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U.S. Patents #7,129,091, #6,409,832 and Patents Pending

E-Wizard Screen Builder

E-Wizard (TM)

Optimization **de novo**

Search For Screen

or Select By Vendor

Emerald BioSystems 1 ▼

- <select vendor>
- Emerald BioSystems Inc.
- Fluidigm
- Hampton Research
- Jena Bioscience
- Qiagen

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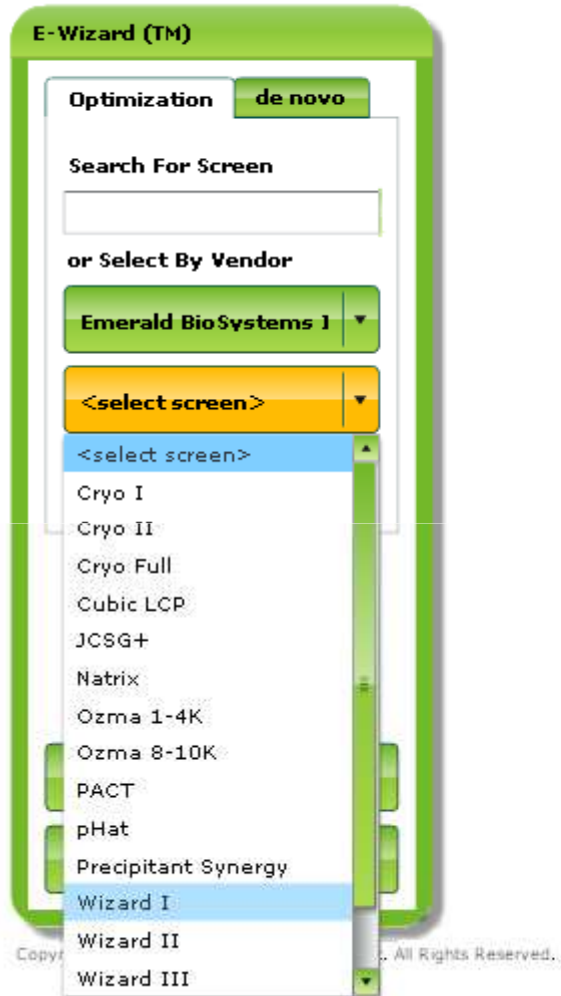


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E-Wizard Screen Builder



E-Wizard Screen Builder

Select a Wizard I condition to optimize

#	Name	Value	Type	pH
C9	ammonium sulfate	2000 mM	precipitant	-
C9	lithium sulfate	200 mM	salt	-
C9	caps/naoh	100 mM	buffer	10.50

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E-Wizard Screen Builder

E-Wizard (TM)

Optimization de novo

Search For Screen

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Wizard I ▾

Condition C9

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New E-Screen (Click on Low/High values to customize)

#	Name	Units	Original	Low	High	Gradient	
C9	ammonium sulfate	mM	2000.0	1800.0	2200.0	horizontal	...
C9	lithium sulfate	mM	200.0	200.0	200.0	none	...
C9	caps/naoh	pH	10.5	9.4	11.5	vertical	...

A1	A2	A3	A4	A5	A6	A7	A8	A9	A10	A11	A12
1800	1836	1873	1909	1945	1982	2018	2055	2091	2127	2164	2200
B1	B2	B3	B4	B5	B6	B7	B8	B9	B10	B11	B12
1800	1836	1873	1909	1945	1982	2018	2055	2091	2127	2164	2200
C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12
1800	1836	1873	1909	1945	1982	2018	2055	2091	2127	2164	2200
D1	D2	D3	D4	D5	D6	D7	D8	D9	D10	D11	D12
1800	1836	1873	1909	1945	1982	2018	2055	2091	2127	2164	2200
E1	E2	E3	E4	E5	E6	E7	E8	E9	E10	E11	E12
1800	1836	1873	1909	1945	1982	2018	2055	2091	2127	2164	2200
F1	F2	F3	F4	F5	F6	F7	F8	F9	F10	F11	F12
1800	1836	1873	1909	1945	1982	2018	2055	2091	2127	2164	2200
G1	G2	G3	G4	G5	G6	G7	G8	G9	G10	G11	G12
1800	1836	1873	1909	1945	1982	2018	2055	2091	2127	2164	2200
H1	H2	H3	H4	H5	H6	H7	H8	H9	H10	H11	H12
1800	1836	1873	1909	1945	1982	2018	2055	2091	2127	2164	2200

View Values ▾
Component Variation ▾

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E-Wizard Screen Builder

The screenshot displays the E-Wizard (TM) interface. A central dialog box titled "Customize ammonium sulfate" is open, allowing users to adjust parameters for a specific component. The dialog includes fields for "Low Value" (1500), "High Value" (2500), and "Original Value" (2000). It also features dropdown menus for "Chemical Type" (set to "precipitant") and "Gradient" (set to "horizontal", with a menu open showing options: "none", "horizontal", and "vertical").

The background interface shows a table for "New E-Screens" with columns: #, Name, Units, Original, Low, High, and Gradient. The "Gradient" column lists options: horizontal, none, and vertical. On the left, there are buttons for "Optimization" (de novo), "Search For Screens", "or Select By Vendor", "Emerald BioSystems", "Wizard 1", "Download", "Order Now!", "Order Info", and "Help". At the bottom of the dialog, there are "View Values" and "Component Variation" buttons.

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E-Wizard Screen Builder

E-Wizard (TM)

Optimization de novo

Search For Screen

or Select By Vendor

Emerald BioSystems I ▼

Wizard I ▼

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New E-Screen (Click on Low/High values to customize)

#	Name	Units	Original	Low	High	Gradient	
C9	ammonium sulfate	mM	2000	1500	2500	vertical	...
C9	lithium sulfate	mM	200.0	200.0	200.0	none	...
C9	caps/naoh	pH	10.5	9.4	11.5	vertical	...

A1	A2	A3	A4	A5	A6	A7	A8	A9	A10	A11	A12
1500	1500	1500	1500	1500	1500	1500	1500	1500	1500	1500	1500
B1	B2	B3	B4	B5	B6	B7	B8	B9	B10	B11	B12
1643	1643	1643	1643	1643	1643	1643	1643	1643	1643	1643	1643
C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12
1786	1786	1786	1786	1786	1786	1786	1786	1786	1786	1786	1786
D1	D2	D3	D4	D5	D6	D7	D8	D9	D10	D11	D12
1929	1929	1929	1929	1929	1929	1929	1929	1929	1929	1929	1929
E1	E2	E3	E4	E5	E6	E7	E8	E9	E10	E11	E12
2071	2071	2071	2071	2071	2071	2071	2071	2071	2071	2071	2071
F1	F2	F3	F4	F5	F6	F7	F8	F9	F10	F11	F12
2214	2214	2214	2214	2214	2214	2214	2214	2214	2214	2214	2214
G1	G2	G3	G4	G5	G6	G7	G8	G9	G10	G11	G12
2357	2357	2357	2357	2357	2357	2357	2357	2357	2357	2357	2357
H1	H2	H3	H4	H5	H6	H7	H8	H9	H10	H11	H12
2500	2500	2500	2500	2500	2500	2500	2500	2500	2500	2500	2500

View Values ▼
Component Variation ▼

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E-Wizard Screen Builder

E-Wizard (TM)

Optimization de novo

Search For Screen

or Select By Vendor

Emerald BioSystems I

Wizard I

Download

Order Now!

Order Info

Help

New E-Screen (Click on Low/High values to customize)

#	Name	Units	Original	Low	High	Gradient	
C9	ammonium sulfate	mM	2000	1500	2500	vertical	...
C9	lithium sulfate	mM	200.0	200.0	200.0	none	...
C9	caps/naoh	pH	10.5	9.4	11.5	vertical	...

A1	A2	A3	A4	A5	A6	A7	A8	A9	A10	A11	A12
1500	1543	1587	2000	2000	2000	2000	2000	2000	1500	2000	2500
B1	B2	B3	B4	B5	B6	B7	B8	B9	B10	B11	B12
1630	1674	1717	2000	2000	2000	2000	2000	2000	1500	2000	2500
C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12
1761	1804	1848	2000	2000	2000	2000	2000	2000	1500	2000	2500
D1	D2	D3	D4	D5	D6	D7	D8	D9	D10	D11	D12
1891	1935	1978	2000	2000	2000	2000	2000	2000	1500	2000	2500
E1	E2	E3	E4	E5	E6	E7	E8	E9	E10	E11	E12
2022	2065	2109	1500	1700	1900	2100	2300	2500	1500	2000	2500
F1	F2	F3	F4	F5	F6	F7	F8	F9	F10	F11	F12
2152	2196	2239	1500	1700	1900	2100	2300	2500	1500	2000	2500
G1	G2	G3	G4	G5	G6	G7	G8	G9	G10	G11	G12
2283	2326	2370	1500	1700	1900	2100	2300	2500	1500	2000	2500
H1	H2	H3	H4	H5	H6	H7	H8	H9	H10	H11	H12
2413	2457	2500	1500	1700	1900	2100	2300	2500	1500	2000	2500

View Values Reichert

Component Variation

Reichert

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E-Wizard Screen Builder

E-Wizard (TM)

Optimization de novo

Add

Remove

Clear All

Order Info

Help

New E-Screen (Click on Low/High values to customize)

#	Name	Units	Original	Low	High	Gradient

A1	A2	A3	A4	A5	A6	A7	A8	A9	A10	A11	A12
B1	B2	B3	B4	B5	B6	B7	B8	B9	B10	B11	B12
C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12
D1	D2	D3	D4	D5	D6	D7	D8	D9	D10	D11	D12
E1	E2	E3	E4	E5	E6	E7	E8	E9	E10	E11	E12
F1	F2	F3	F4	F5	F6	F7	F8	F9	F10	F11	F12
G1	G2	G3	G4	G5	G6	G7	G8	G9	G10	G11	G12
H1	H2	H3	H4	H5	H6	H7	H8	H9	H10	H11	H12

View Values
▼

Component Variation
▼

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E-Wizard Screen Builder

The screenshot displays the E-Wizard (TM) interface. On the left, there is a sidebar with buttons for 'Add', 'Remove', 'Clear All', 'Order Info', and 'Help'. The main area is titled 'New E-Screen (Click on Low/High values to customize)'. A dialog box titled 'Select a Chemical to Add to the Template Condition' is open, showing a list of chemicals and buffers. The 'Buffers' tab is selected, and the following table is visible:

Name	Short Name
ammonium fluoride	NH4 fluoride
ammonium formate	NH4 formate
ammonium iodide	NH4 iodide
ammonium nitrate	NH4 nitrate
ammonium phosphate di	(NH4)2H phosphate
ammonium phosphate m	(NH4)H2 phosphate
ammonium sulfate	(NH4)2 sulfate
ammonium sulfite	(NH4)2 sulfite
ammonium tartrate dibas	(NH4)2 tartrate
barium acetate	Ba acetate

Below the table are 'Select' and 'Cancel' buttons. The background shows a grid with columns for 'Low', 'High', and 'Gradient'.

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E-Wizard Screen Builder

E-Wizard (TM)

Optimization de novo

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Wizard I ▾

Condition C9

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Review Your Screen

Well	Buffer	pHConj	[Buffer	pH	pKa	Chem 1	[Chem 1	Chem2	[Chem2	Ch
A1	caps	naoh	100.00	9.40	10.40	ammon	1800.00	lithium	200.00	
A2	caps	naoh	100.00	9.40	10.40	ammon	1836.36	lithium	200.00	
A3	caps	naoh	100.00	9.40	10.40	ammon	1872.72	lithium	200.00	
A4	caps	naoh	100.00	9.40	10.40	ammon	1909.09	lithium	200.00	
A5	caps	naoh	100.00	9.40	10.40	ammon	1945.45	lithium	200.00	
A6	caps	naoh	100.00	9.40	10.40	ammon	1981.81	lithium	200.00	
A7	caps	naoh	100.00	9.40	10.40	ammon	2018.18	lithium	200.00	
A8	caps	naoh	100.00	9.40	10.40	ammon	2054.54	lithium	200.00	
A9	caps	naoh	100.00	9.40	10.40	ammon	2090.90	lithium	200.00	
A10	caps	naoh	100.00	9.40	10.40	ammon	2127.27	lithium	200.00	
A11	caps	naoh	100.00	9.40	10.40	ammon	2163.63	lithium	200.00	
A12	caps	naoh	100.00	9.40	10.40	ammon	2200.00	lithium	200.00	
B1	caps	naoh	100.00	9.70	10.40	ammon	1800.00	lithium	200.00	
B2	caps	naoh	100.00	9.70	10.40	ammon	1836.36	lithium	200.00	
B3	caps	naoh	100.00	9.70	10.40	ammon	1872.72	lithium	200.00	
B4	caps	naoh	100.00	9.70	10.40	ammon	1909.09	lithium	200.00	

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Opti-Matrix Maker

Features and Benefits:

Design Screens using E-Wizard Screen Builder

Dispenses a 96-formulation matrix from up to 10 different stocks

Use any liquid: aqueous, organic, viscous and low surface tension liquids of varied pH

Dispenses into SBS container format (blocks, well plates)

High accuracy dispensation, even with highly viscous solutions

Intuitive E-Wizard builder software and database support for formulation design

Enables systematic variation of components and testing of more formulations

Built in stock volume tracking



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