

SimulationParameterK

STUDIES

FDTDdraft

Editor

CONFIGURATION

Simulation Domain

Run Time

Grid Specification

Boundary and Symmetry

Shutoff Condition

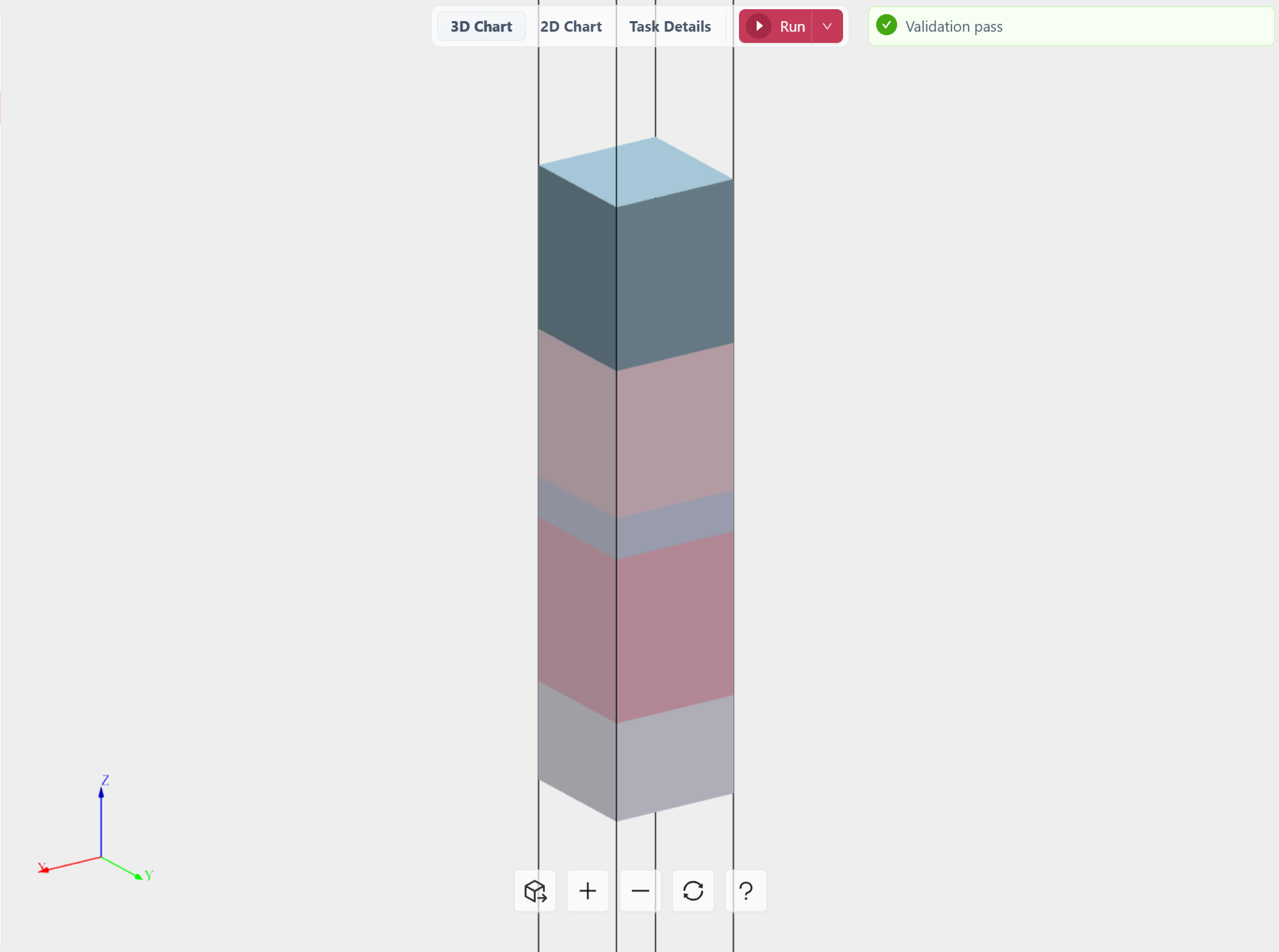
Show More

STRUCTURES

SOURCES

MONITORS

SCRIPT OBJECTS



Visibility

Axes

Ruler

Simulation Domain

Sources(1/1)

Monitors(0/3)

Structures(7/7)

SiO2

ITO

PEDOT

P3HT

Al

ITO\_Coating

Au\_Nanosphere

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MONITORS

transmittance

reflectance

field\_xz

SCRIPT OBJECTS

Edit MonitorHelp

\* name

field\_xz

\* type

FieldMonitor

center + size

bounds

center

X0μm

Y0μm

Z0μm

\* size

XInfinityfxμm

Y0μm

ZInfinityfxμm

For 1D/2D monitors, set the size of the corresponding dimensions to 0.

fields

Ex × Ey × Ez × Hx × Hy × Hz ×

Flux and Poynting vector will be included in the result if all necessary fields are selected.

wavelengths

frequencies

unit: μm

Enter range

Custom

Apply

Z

Y

X

2D Chart

Task Details

Run

Validation pass

Visibility

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Ruler

Simulation Domain

Sources1/1

Monitors0/3

STRUCTURES7/7

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+

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Simulation Parameter K

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STRUCTURES

SOURCES

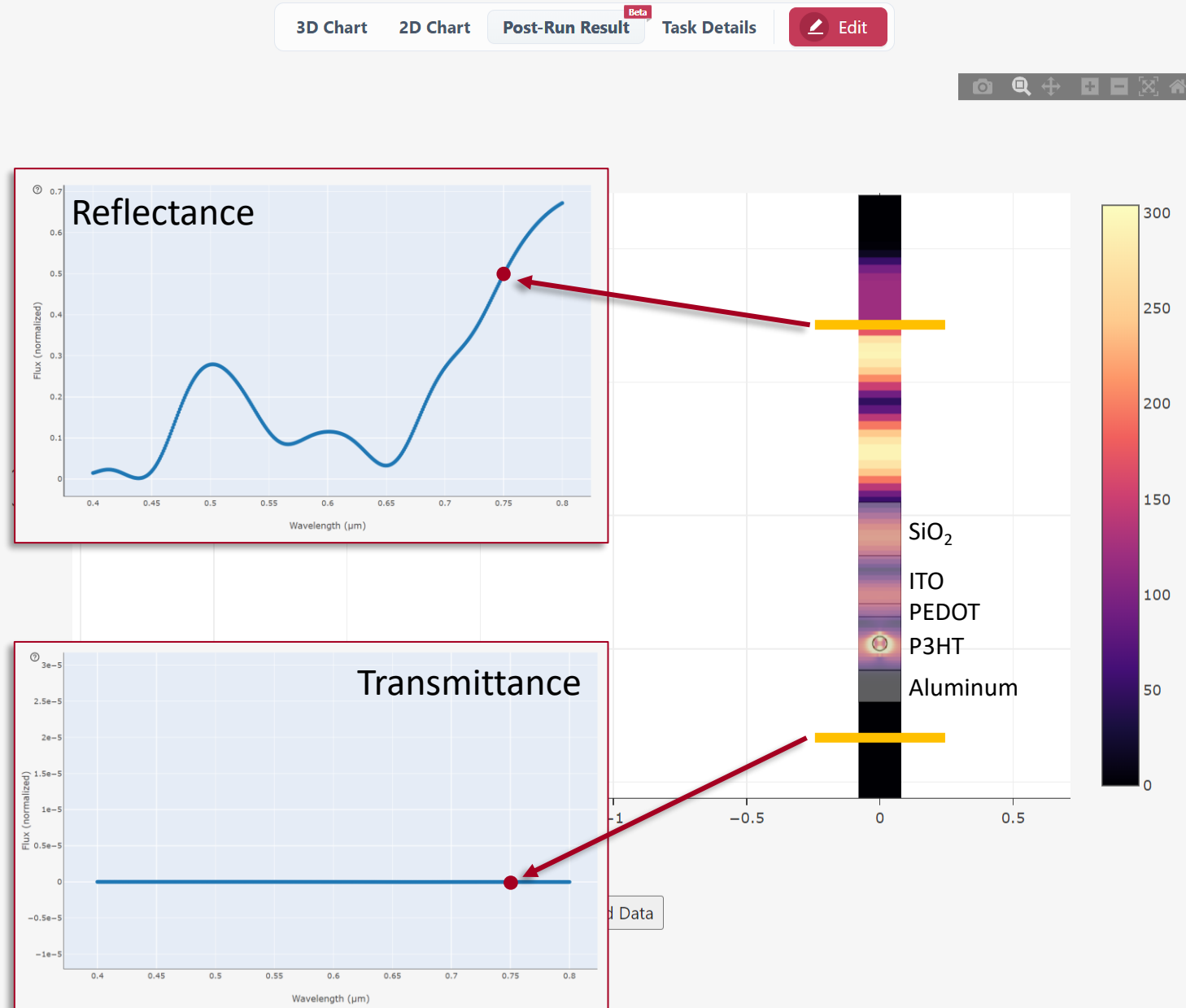
MONITORS

transmittance

reflectance

field\_xz

SCRIPT OBJECTS



Result Advanced

Monitor Name

field\_xz

Type: FieldMonitor

Field Component

E

Value to Plot

Magnitude (abs)

Y Position (μm)

0

Frequency Wavelength THz

399.7232870506853

Use equal axis aspect ratio

Overlay with structure

Color Scale

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SCRIPT OBJECTS

Boundary and Symmetry

Boundary ConditionHelp

x

Periodic

y

Periodic

z

Periodic

SymmetryHelp

x

No symmetry

y

No symmetry

z

No symmetry

Apply

2D Chart

Task Details

Run

Validation pass

Visibility

Axes

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Simulation Domain

Sources1/1

Monitors2/3

Structures6/7

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3D View

2D Chart

Task Details

Unit Cell

3D View

2D Chart

Task Details

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SCRIPT OBJECTS

Boundary and Symmetry

Boundary ConditionHelp

x

Periodic

Periodic

y

Periodic

Periodic

z

PML

PML

SymmetryHelp

x

No symmetry

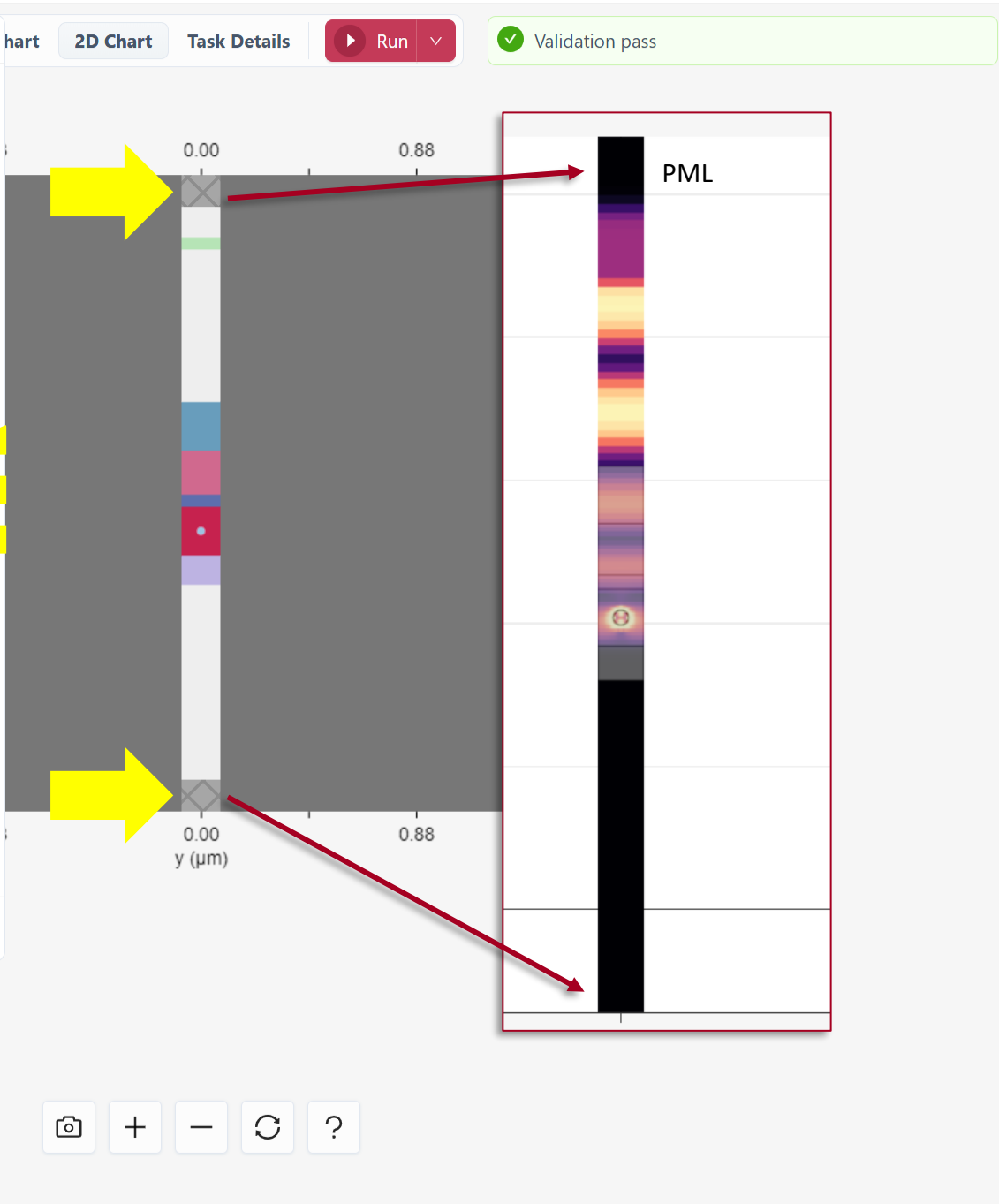
y

No symmetry

z

No symmetry

Apply



Plot Setting

X

Y

Z

0

Visual Thickness of Plane

0.05

Show grid

Show sources

Show monitors

Show structure border

Plot permittivity

Measure

SimulationParameterK

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SCRIPT OBJECTS

Boundary and Symmetry

Boundary Condition

Help

x

Periodic

+

Periodic

y

Periodic

+

Periodic

z

PECBoundary

+

PML

Symmetry

Help

x

No symmetry

y

No symmetry

z

No symmetry

Apply

hart

2D Chart

Task Details

Run

Validation pass

The figure displays a 3D schematic of a waveguide structure and two corresponding line plots. The waveguide is a rectangular prism with a yellow top layer, a green middle layer, and a blue bottom layer. The top layer is labeled '-z: PECBoundary' and the middle layer is labeled '-z: PML'. The bottom layer is labeled 'Au\_Nanosphere'. The waveguide is surrounded by a gray simulation domain. The two line plots show the normalized flux (y-axis, 0 to 0.7) versus wavelength in micrometers (x-axis, 0.4 to 0.8). The top plot is titled '-z: PECBoundary' and the bottom plot is titled '-z: PML'. Both plots show a similar trend with a peak around 0.55 micrometers and a dip around 0.65 micrometers.

Visibility

Axes

Ruler

Simulation Domain

Sources(1/1)

Monitors(1/2)

Structures(6/6)

SiO2

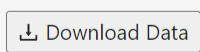
ITO

PEDOT

P3HT

ITO\_Coating

Au\_Nanosphere



Beta

>| Result Advanced

Monitor Name

field\_xz

Type: FieldMonitor

Field Component


Ex

Value to Plot

Real

Y Position ( $\mu\text{m}$ )

0

—  —


+

Frequency

Wavelength

THz


399.7232870506853

—  —

+



☒ Use equal axis aspect ratio

☒ Overlay with structure


—  —

+

☒ Color Scale

—  —  —

+



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SOURCES

plane\_wave

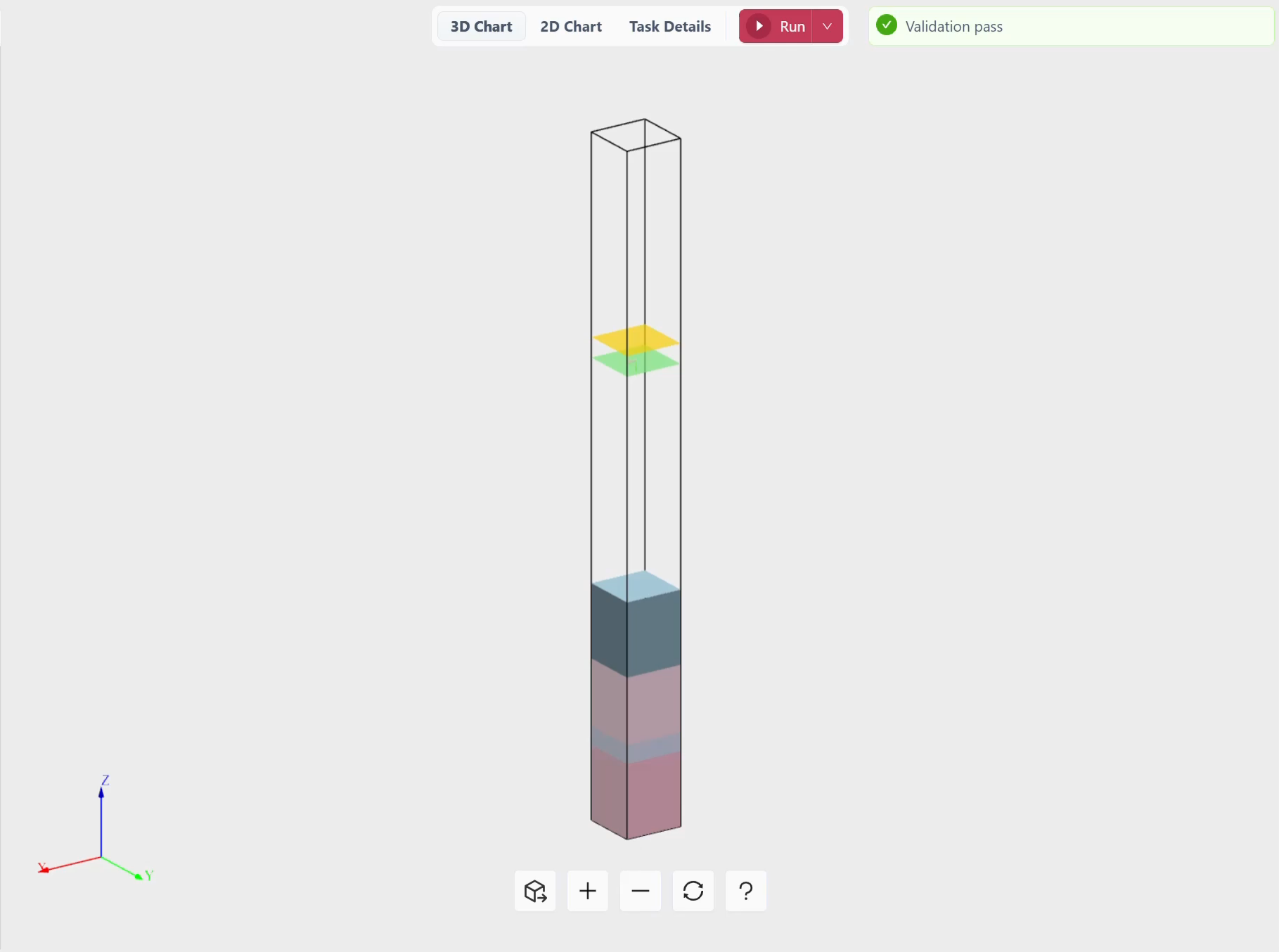
MONITORS

transmittance

reflectance

field\_xz

SCRIPT OBJECTS



Visibility

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Structures(6/6)

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SCRIPT OBJECTS

Boundary and Symmetry

Boundary ConditionHelp

x

— BlochBoundary

+ BlochBoundary

y

— BlochBoundary

+ BlochBoundary

z

— PECBoundary

+ Absorber

Symmetry

Periodic

PECBoundary

PMCBoundary

PML

StablePML

Absorber

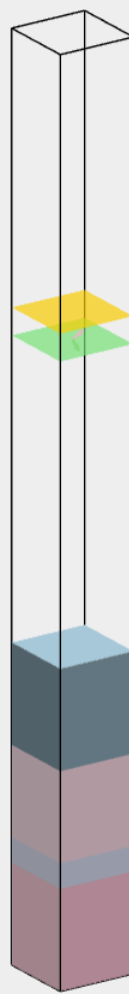
BlochBoundary

Apply

hart2D ChartTask Details

Run

Validation pass



Visibility

Axes

Ruler

Simulation Domain

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Monitors(1/2)

Structures(6/6)

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