

PURE
materials

CLEAN
processes

CLEAR
images

RESULTS
you can trust

You put a lot into
your research.

Use the microplates
designed to get the
most out.



Aurora[®]
Microplates

complete
The High Performance Microplate Solution.

Featuring the purist raw materials combined with the cleanest and most precise manufacturing processes - Aurora Microplates deliver ultra-clear images and extremely low optical noise so your results will be trustworthy under all assay conditions. Aurora Microplates can include extra evaporation barrier wells which will reduce or eliminate edge effects in long assays. Aurora Microplates are available in 96, 384, 1536 and 3456 well formats for demanding research needs.

Material Purity:

The type of material used in microplates significantly affects optical clarity and chemical compatibility. Aurora Microplates Imager-Quality Plates are made of 100% Cyclo Olefin Polymer (COP). Every plate is made with the exact same formulation of resin, colorant and film. COP is a clear, clean medical resin free of metals and other containments that can impact cells, enzymes and other bioactive entities- especially when compared to Polystyrene (PS).

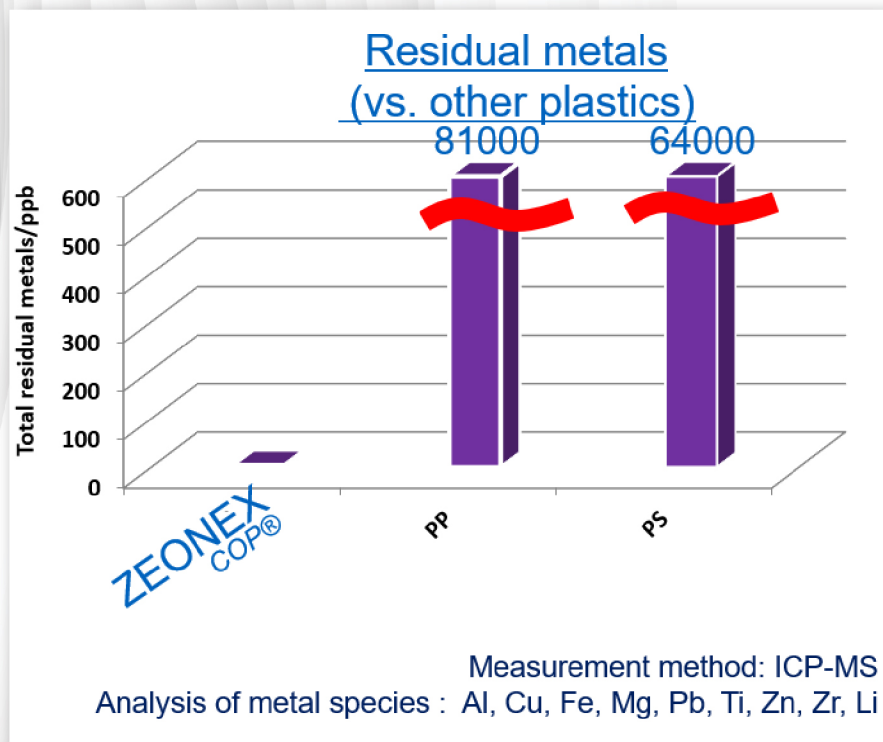


Plate design:

Microplate Flatness and Film Thickness: The flat-bottom design of Aurora microplates are optimized for high-performance imaging and multi-mode detection. The flat bottom allows for more efficient plate washing results. The clear film-bottom of each microplate is a sheet of unpigmented COP which is fused by heat to the interstitial material between the wells during the molding process. This provides an extremely flat (within 120µm), high transmittance window for optical measurements of each well. The bottom thickness is 100 or 188 microns.

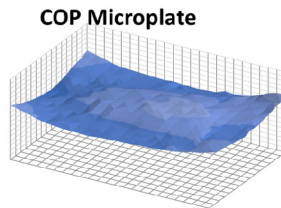
Excellent bottom flatness

Excellent bottom flatness reduces imaging time considerably

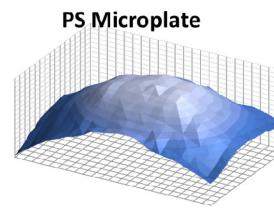
- ✓ The focus length of the objective lens can be minimized.
- ✓ Cell images can be captured in one Z-axis slice by using a confocal microscope.

Capture conditions

Plate : Aurora 384 well microplate
Cell : HeLa cell
Device : Confocal image cytometer
CellVoyager CQ1,
YOKOGAWA
Lens : 4x
Wavelength : 405 nm



Median 22.5 µm
Max 36.4 µm
Minimum -1.2 µm
Gap 37.6 µm



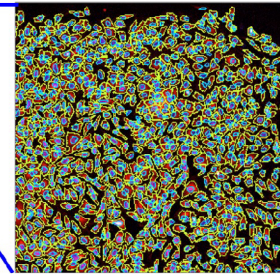
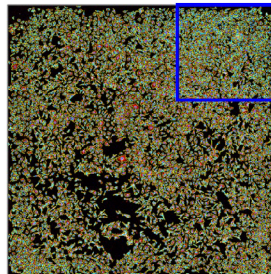
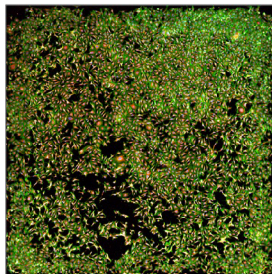
Median -74.9 µm
Max -2.2 µm
Minimum -115.9 µm
Gap 113.7 µm

Autofocus ON : 11 minutes ➔ Autofocus OFF : 4 minutes

Excellent bottom flatness

Excellent bottom flatness reduces imaging time considerably

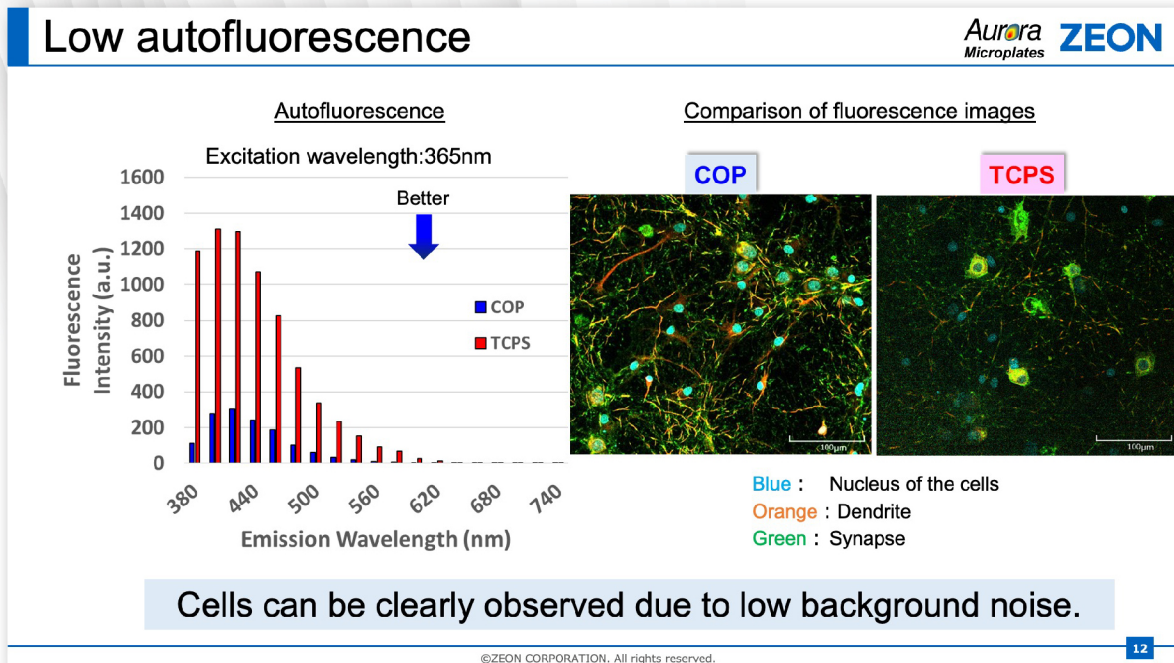
- ✓ The focus length of the objective lens can be minimized.
- ✓ Cell images can be captured in one Z-axis slice by using a confocal microscope.



Cells in the corner of a well can also be imaged with one slice

Material optics:

Ensuring that your chosen microplate is compatible with your imaging equipment from an optics standpoint is essential for reliable data acquisition. Fluorescence microscopes or high-content screening systems require materials that provide high quality images. Specifically, COP exhibits high-transmission of UV wavelengths of light (down to 230nm) and very low auto-fluorescence, especially when excited at UV wavelengths of light. Aurora Microplates are designed with a slight draft angle, maintaining a large viewing surface. The optical-film bottom of the Aurora Microplate is 188 μm thick, has a refractive index of 1.534 and possesses very little birefringence. All Aurora Microplates are made to exacting flatness specifications of less than 200 μm .



At Aurora we stand by the motto of Pure Clean Clear Results which embody our drive to make the best Microplates. We use the best materials, the cleanest and most precise molding operations and facilities to deliver our Microplates in a timely fashion. We have great respect for the demands of modern discovery science and its ever-evolving search for more sensitive and subtle clues to understanding cause and effect. We believe that the best Microplates should be an invisible carrier for your work- not a contributor to variability in your data. We will continue to adhere to these principles as we operate, innovate and support your needs now and in the future.