XSPA-200 ER

X-ray Seamless Pixel Array Detector

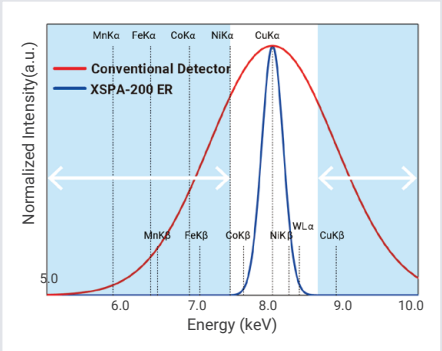
Achieves Low BG[1] Measurements

Experience groundbreaking measurement with the “XSPA-200 ER” detector and MiniFlex! Capable of 2-dimensional measurements with high energy resolution.

[1] Background

MiniFlex

Benchtop Powder X-ray Diffraction (XRD) Instrument



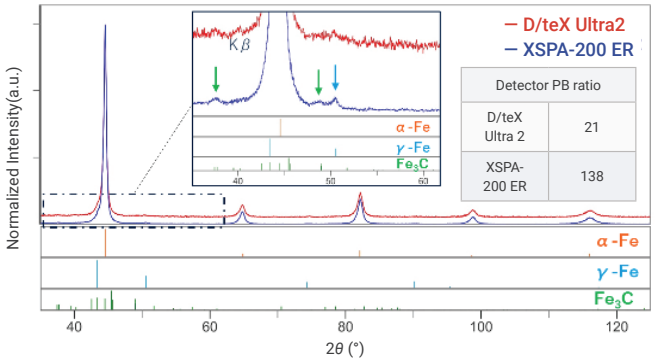
Significantly Reduced BG

XSPA-200 ER eliminates fluorescent X-rays from transition metal elements and significantly reduces the background signal.

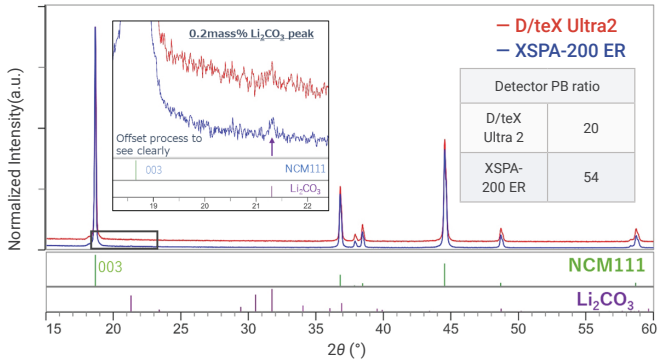
- High Energy Resolution
- Filterless Measurement
- Pixel Array Detector
- Wide Dynamic Range

High Energy Resolution:
Low BG[1] improves PB[2] ratio, resulting in clear observation of trace phases

Determination of trace amounts of γ-Fe (residual austenite) and Fe_3C in steel materials



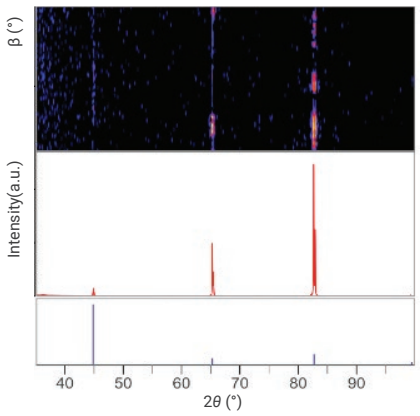
Determination of trace Li_2CO_3 in the cathode material $Li(Ni_{0.333}Co_{0.333}Mn_{0.333})O_2$



[2] Peak to Background

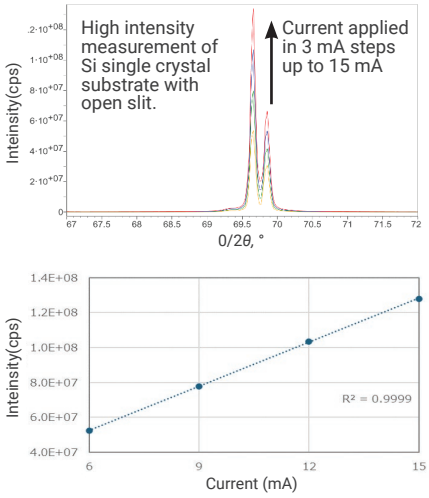
Pixel Array Detector

2D measurements of steel materials. Spot-like Debye-Scherrer rings suggest the presence of coarse particles in the sample.



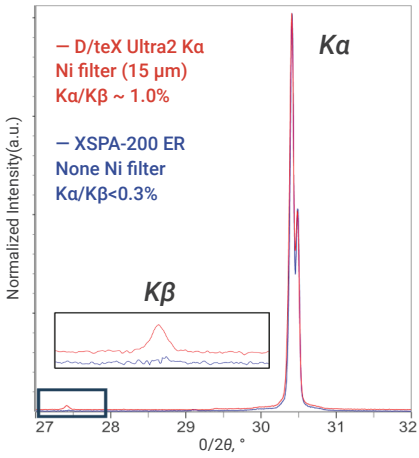
Linear Response Over Wide Dynamic Range

Photon counting detector with linear response up to a high count rate of 10^5 cps / pixel.



Filterless Measurement

Filterless measurements, in which Kβ-rays are nearly unobserved, can also be selected.



Technical Specifications

Detection Type	Direct detection photon counting
Detection Element	Si
Pixel Size	75 μm x 75 μm
Pixels	32,768
Detection Area	19.2 mm× 9.6 mm=184.32 mm^2
Max Counting Rate	>1 x 10^5 cps/pixel

Wavelength	Co, Cu
Counting Efficiency (CuKα)	99%
Energy Resolution (CuKα)	340 eV (XRF reduction mode)
Cooling Method	Air

Due to product improvements, specifications and appearance may be changed without notice. Thank you for your understanding.

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