

X-RAY FACILITIES GROUP

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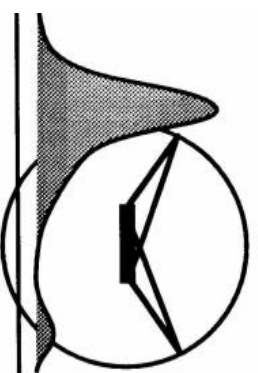
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XRD study of a 3D printed Cu foam sample

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Date

: 05 apr 2023

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Research question

: Phase identification

Sample



Specimen

The sample was mounted on a Si-510 zero-background wafer.

Experimental

Instrument: Bruker D8 Advance diffractometer Bragg-Brentano geometry with graphite monochromator and Vantec position sensitive detector. Co Ka radiation. Divergence slit var12, scatter screen height 8 mm, 40 kV 40 mA.

Measurement:

Coupled θ -2 θ scan 10° - 135°, step size 0.021° 2 θ , counting time per step 1 s.

Data evaluation

Bruker software DiffraSuite.EVA vs 6.1.

Results

Figure 1 shows the measured XRD pattern in black, after background subtraction. The colored sticks give the peak positions and intensities of the possibly present crystalline phases, using the ICDD pdf4 database. For better display of small peaks, the intensity scales are square root. Only Copper was detected.

If the analysis is a significant part of a publication, a co-authorship is preferred.

In any case, it is useful to involve us in the preparation of any presentation to ensure optimum and correct use of the analysis results!

*Whenever used in a publication, an acknowledgement will be appreciated, e.g.:
"personX at the Department of Materials Science and Engineering of the Delft University of Technology is acknowledged for the X-ray analysis".*

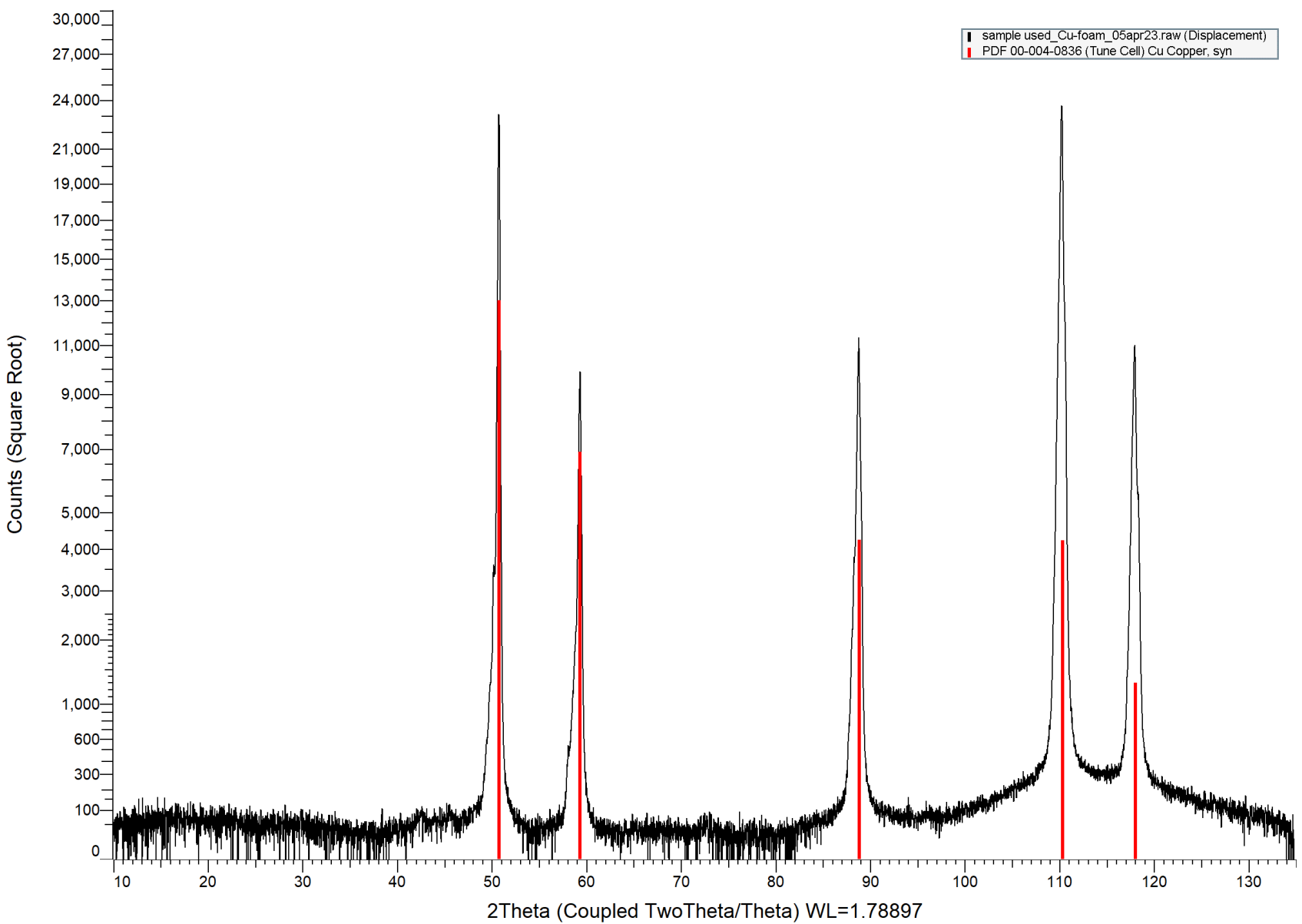


Figure 1 XRD pattern sample "used_Cu-foam ", intensity scale is square root.