

## Poster Presentation

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### *PDF calculations from STOE STADI P Ag K $\alpha$ 1 low- and high-temperature data*

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An impressive comparison of  $G(r)$  calculated with PDFgetX2(1) from data of Naphthalen taken at room temperature with a Stoe Stadi P powder diffractometer in Transmission mode equipped with a Ag-tube, a Ge(111)-monochromator for pure Ag-K $\alpha$ 1-radiation (0.5594 Å) as well as the Dectris MYTHEN 1K with 1mm chip size and from synchrotron data, beamline X17A, NSLS Brookhaven with a wavelength of 0.1839 Å, yields amazingly similar peak widths for both experiment sites. To observe the temperature dependence of this resolution, the same laboratory setup with an additional Oxford Cryosystems Cobra or a Stoe furnace has been chosen to compare the signal width as a function of T. Low temperature data for these PDF calculation experiments has been taken from LaB6 as a crystalline standard and Naphthalene as well known organic phase. In addition high temperature  $G(r)$ -data from Ammonium Nitride will be demonstrated.

[1] Qiu, X., Thompson, J.W. and Billinge, S.J.L., *J. Appl. Chem.*, (2004), 37, 678.

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