

## **New innovations in the D2 PHASER benchtop diffractometer**

Brian Jones<sup>1</sup>, Nathan Henderson<sup>1</sup>, S. Nick Rodesney<sup>1</sup>, Jon Giencke<sup>1</sup>, Arnt Kern<sup>2</sup>

<sup>1</sup> Bruker AXS – 5465 East Cheryl Pkwy – Madison, WI - US

<sup>2</sup> Bruker AXS – Oestliche Rheinbrueckenstrasse 49 - Karlsruhe - Germany

The D2 PHASER is a Benchtop class diffractometer for all X-ray powder diffraction applications in Bragg-Brentano geometry. This technique has very broad applicability in numerous industries and academic settings including cement, minerals, mining, geology, chemistry, pharmaceuticals, as well as for educational purposes.

In this presentation we describe new hardware configurations that significantly increase speed, lower background, and improve data quality. The working principle and functionality of these new components will be discussed along with data highlighting improvements over previous capability.

Application examples will be presented showing benefits to specific industries such as minerals, mining, and pharmaceuticals.