

## The cynoprobe

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Mintek has developed the cynoprobe which offers the functionality to measure both 'free' and weak acid dissociable (WAD) cyanide concentration of up to two independent streams. The real-time WAD cyanide measurement can minimize the risk of toxicity to bird, animal and human life, and be used to control and optimize the cyanide destruction and recovery process. The instrument is capable of measuring a very wide range of cyanide concentrations (0.5–3000 ppm).

The Cynoprobe uses an amperometric technique to accurately and reliably measure the cyanide concentration in a pulp medium. The cynoprobe's fast and reliable measurements allow for rapid detection of changes in cyanide concentration. This results in a very cost-effective cyanide measurement solution. This paper presents the success of the Cynoprobe instrument in terms of bridging the "Innovation Chasm".

## Biography

Makhapa Makhafola is currently the General Manager: Research & Development at Mintek. He worked as lecturer in Analytical Chemistry at Technikon Northern Gauteng and University of Venda. In 2004, he was appointed Director: Quality Assurance at Border Technikon. He was the Director: Quality Assurance at the University of Venda until he joined University of Kwa-Zulu Natal as the Director Quality Promotion & Assurance in July 2010, part of his responsibility was to lead the World University Rankings project. He served as member of Umalusi Council from May 2005 to June 2010. He also served as Chairperson of Lovedale FET College Audit Committee. He is currently the Chairperson of DST/MINTEK Nanotechnology Innovation Centre Steering Committee. He served as a member of the Higher Education Quality Assurance Manager's Forum and also chaired and facilitated various workshops on quality assurance in higher education. He is also serving as an academic committee member of QS World Ranking Universities. He did the post-doctoral training in Analytical Chemistry at Indiana University under Prof G. Hieftje. He has presented his research work in more than 19 international conferences and published in credible journals.

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