









## New Dimensions in Isotope Ratio ★ Mass Spectrometry

## **AMD 202-D**

An Innovation dedicated for demanding challenges in specific Nuclear Power Plants

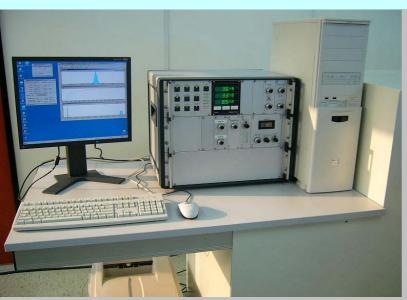
A significant contribution to safety control of heavy water reactors known as HWR's

Detection of **contamination** of light cooling water by heavy water in the **ppb range** 

Precise **on-line control** of the H<sub>2</sub><sup>+</sup>/HD<sup>+</sup> isotope ratio by application of a new **unique technology** and measuring procedure

The new **AMD 202-D combines all advantages** of magnetic sector technology including high resolution, high sensitivity and measuring precision

Monitoring of H<sub>2</sub>/HD isotope ratio variations in water with a **precision and accuracy better than 0.1 %** 



## **Unique Features:**

- H<sub>3</sub><sup>+</sup>/HD<sup>+</sup> ion doublet is separated at a mass resolution of 3.000 (10% valley)
- No application of H<sub>3</sub><sup>+</sup> correction factor for the determination of the HD<sup>+</sup> ion intensity is required
- Any variation of H<sub>3</sub><sup>+</sup> ion intensity during dynamic Hydrogen production in the connected pyrolysis system and on-line measurement of HD<sup>+</sup> is irrelevant

## **Proven Technology:**

- A compact double focusing magnetic sector analyzer applying Reversed Nier-Johnson ion optics
- Unique dual collector arrangement for detection of H<sub>2</sub><sup>+</sup> at low resolution and HD<sup>+</sup> at high resolution
- Latest digital hardware technology for data acquisition and processing and sophisticated software

The Innovators in Magnetic Sector Mass Spectrometry

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