

## Research Interests: Prof Rainer Cramer, FRSC



**Professor Rainer Cramer, FRSC**  
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### Publications

<http://scholar.google.co.uk/citations?user=pwJSnlAAAAAJ&hl=en>

Prof Cramer is Professor of Mass Spectrometry and Bioanalytical Sciences in the Department of Chemistry. He obtained his doctoral degree in Prof Hillenkamp's laboratory, the birthplace of matrix-assisted laser desorption/ionization (MALDI), which together with electrospray ionization (ESI) is the main technique in modern biological mass spectrometry (MS). He joined the Ludwig Institute of Cancer Research in 1997 and became an Assistant Member and the Head of Bioanalytical Chemistry in 1999 and was also affiliated with UCL (Reader in Biological Mass Spectrometry in the Department of Biochemistry) until 2004 before he joined the University of Reading as the Director of the BioCentre in 2005.

### Research Interests

- (Bio)analytical Sciences, Mass Spectrometry (MS), Proteomics, the 'omics'
- Development of liquid UV-(AP-)MALDI MS for large-scale, high-throughput (HTP) automated biomolecular analysis
- Development of novel soft- and hardware in MS and the 'omics', in particular new and improved ion source designs
- Investigations of novel polypeptide derivatisation strategies for significantly increased sensitivity in the analysis of low abundant and post-translationally modified proteins
- Design, development and implementation of sensitive high-throughput automated workflows for large-scale protein characterisation studies
- Identification of binding partners from purified protein complexes in cancer research, plant sciences, and other fields in molecular and cellular biology
- Proteomic analysis of body fluids for biomarker discovery and clinical diagnosis
- Proteogenomics and characterisation of gene products in various expression systems
- Development of proteomic standards for clinical/pharmaceutical analysis