

## Highlights of the IAEA coordinated research and beyond - Future Perspectives

*Monday, September 11, 2023 11:15 AM (25 minutes)*

The International Atomic Energy Agency (IAEA), prior to the formal operation of the XRF beamline at Elettra Sincrotrone Trieste, launched a Coordinated Research Project (CRP) entitled: “Experiments with Synchrotron Radiation for Modern Environmental and Industrial Applications” under the Physics Section project “Experiments with Accelerators”. The target objective of the CRP was to increase the quality and the competitiveness of Member States research in the field of synchrotron radiation-based X-ray spectrometry methods. This was planned to be achieved by supporting access to synchrotron radiation facilities, fostering the know-how transfer and strengthening the research capacity of MS in various interdisciplinary applications.

This contribution aims to highlight the achievements of the IAEA CRP which have generated high quality results in analytical applications of emerging interest in various scientific domains such as: characterization of structured novel materials for energy storage and conversion technologies, environmental monitoring of contaminants in air, water and biological samples, cultural heritage and preventive conservation, food products security and advances of the current level of knowledge concerning fundamental x-ray interactions and parameters. The follow up activities and engagement of the groups initially participating in the CRP will be also presented and their future perspectives with respect to the Elettra 2.0 upgrade of the XRF beamline will be discussed.

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