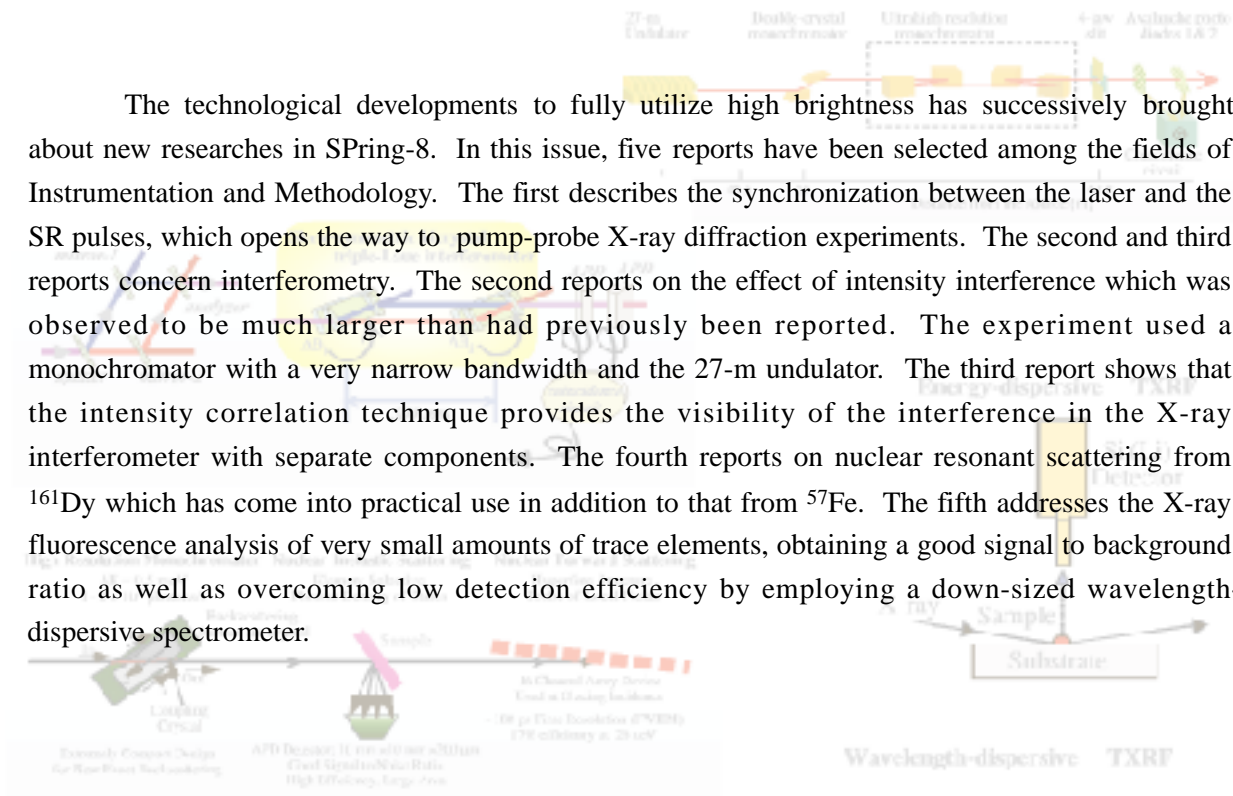


INSTRUMENTATION & METHODOLOGY

The technological developments to fully utilize high brightness has successively brought about new researches in SPring-8. In this issue, five reports have been selected among the fields of Instrumentation and Methodology. The first describes the synchronization between the laser and the SR pulses, which opens the way to pump-probe X-ray diffraction experiments. The second and third reports concern interferometry. The second reports on the effect of intensity interference which was observed to be much larger than had previously been reported. The experiment used a monochromator with a very narrow bandwidth and the 27-m undulator. The third report shows that the intensity correlation technique provides the visibility of the interference in the X-ray interferometer with separate components. The fourth reports on nuclear resonant scattering from ^{161}Dy which has come into practical use in addition to that from ^{57}Fe . The fifth addresses the X-ray fluorescence analysis of very small amounts of trace elements, obtaining a good signal to background ratio as well as overcoming low detection efficiency by employing a down-sized wavelength-dispersive spectrometer.



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