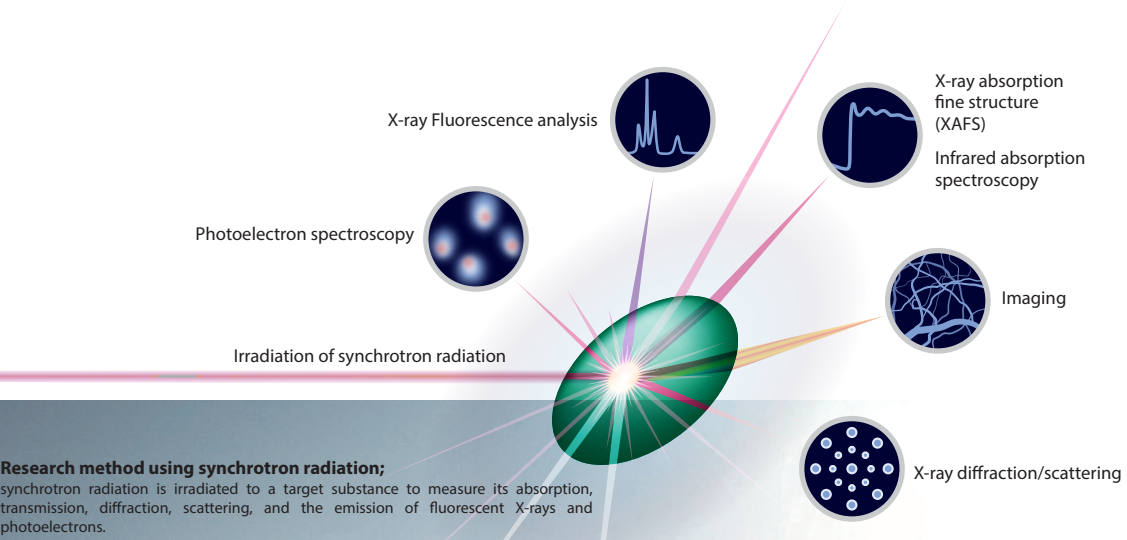


Greetings

In June 2019, I was inaugurated as the president of Japan Synchrotron Radiation Research Institute (JASRI), succeeding the former president, Dr. Yoshiharu Doi. Since SPring-8 was opened to users in 1997, I have carried out my research of the laboratory at the Univ. of Tokyo as a user of SPring-8, including joint research with industry groups. Although my relationship to SPring-8 has changed, I will endeavor to do my best to promote research activities at SPring-8/SACLA by fulfilling the mission of JASRI to select appropriate research proposals through a fair system and to support the research being conducted by users. Expectations regarding the use of SPring-8 for industrial applications are becoming increasingly prevalent in terms of giving back the achievements at SPring-8 to the general public. To fulfill these expectations, we will promote the use of SPring-8 for industrial applications through close information exchange with people from industry and also the dissemination of information related to the needs of people to use SPring-8 in industry and industrial applications. This brochure includes examples of industrial research activities carried out at SPring-8, the achievements of which are clearly understandable to those outside the field. I hope the brochure will help you understand the use of SPring-8 for industrial applications. I'm grateful to the people in industry who cooperated in editing this publication, as well as to all other people concerned.

Yoshiyuki Amemiya, President of JASRI



Research method using synchrotron radiation; synchrotron radiation is irradiated to a target substance to measure its absorption, transmission, diffraction, scattering, and the emission of fluorescent X-rays and photoelectrons.

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The photograph shows the SPring-8 storage ring used to generate synchrotron radiation. Synchrotron radiation is an electromagnetic wave generated when a high-energy electron beam is bent in a magnetic field, and SPring-8 provides X-rays that are 100 million times brighter than conventional X-rays. Similarly to microscopes, the brighter the light, the higher the resolution.