# <u>施設に関する報告</u> SPring-8

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アブソーバ装置の改良
 -メンテナンス容易
 -組み合わせ数増加
 -スペースの有効利用













Topo(2, 11%)
Diffraction (6, 33%)
Medical (4, 22%)
DXAFS (4, 22%)
High pressures (1, 6%)
etc (1, 6%)





Topo(2, 11%)
Diffraction (7, 39%)
Medical (8, 44%)
DXAFS (0, 0%)
High pressures (1, 6%)
etc (0, 0%)





Topo(2, 7%)
Diffraction (10, 36%)
Medical (9, 32%)
DXAFS (6, 21%)
High pressures (1, 4%)
etc (0, 0%)





## <u>SPring-8 upgrade</u>

We propose upgrading the SPring-8 light source in the year 2019 in order to advance promising science and to support industrial innovations that will improve our life and contribute to a more sustainable society. (preliminary report p. 5)

- Key concepts of the upgrade Ultimate-performance energy-effective facility
  - Ultimate storage ring (coherence and brilliance)
    - Emittance  $\rightarrow$  10 pm.rad.
    - Brilliance  $\rightarrow$  x1000
  - Synergetic use with SACLA
    - Correlative imaging
    - X-ray pump-probe experiment
  - Energy-efficient facility
    - Utilization of existing resources
    - Low energy consumption

### <u>Beamline</u>



Figure 6.1: Comparison of the brilliance curve available in the existing beamlines in SPring-8 and proposed ones in SPring-8 II. Peak values at respective harmonics are plotted in the undulator beamline, while a spectrum obtained at the maximum K value is plotted in the wiggler beamline. The stored current of 300 and 100 mA are respectively assumed for SPring-8 II and SPring-8.

- HXBL-A (Hard X-ray BeamLine)
- HXBL-B
- SXBL (Soft X-ray BeamLine)
- MUBL (Mini Undulator BeamLine)
- DWBL (Damping Wiggler BeamLine)
- BM



Figure 6.2: Comparison of the flux available in the existing beamlines in SPring-8 and proposed ones in SPring-8 II. The stored current of 300 and 100 mA are respectively assumed for SPring-8 II and SPring-8.

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## Road map

#### Road map for SPring-8 II



Figure A.1: Planned Schedule for SPring-8 II.

#### Table A.1: Milestones

Date	Events
Oct. 10, 2008	Kick-off of the SPring-8 Working Group
Dec. 18, 2008	Release of Internal Report on "Boundary Condition and
	Expected Light Source Performance of the Upgraded SPring-8"
Mar. 24, 2009	Release of Internal Report on Future Scientific Cases
Jun. 19, 2009	1st Symposium on SPring-8 Future Ugprade 2019
Dec. 12, 2009	1st Workshop on SPring-8 II Accelerator Design
Dec. 4, 2010	2nd Symposium on SPring-8 Future Upgrade 2019
Apr. 25, 2011	2nd Workshop on SPring-8 II Accelerator Design

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