

1

Experimental Proposals

1-1 Scientific Proposals

The Photon Factory accepts experimental proposals submitted by researchers mainly at universities and research institutes inside and outside Japan. The proposals are reviewed by the PF Program Advisory Commit-

tee (PF-PAC). The favorably recommended proposals are accepted and formally approved by the Advisory Committee for Institute of Materials Structure Science. The number of accepted proposals over the period 1997-2008 is shown in Table 1, where S1/S2, U, G, and P denote Special, Urgent, General and Preliminary

Table 1 Number of proposals accepted for the period 1997-2008.

FY	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
S1	3	1	0	0	0	0	1	1	0	1	0	0
S2	1	3	3	2	2	3	2	0	3	6	1	4
U	1	4	2	0	5	3	2	4	0	1	7	3
G	303	333	323	308	339	321	318	382	310	388	403	402
P	6	14	22	17	18	16	9	13	10	22	14	14

Table 2 List of S-type proposals effective in FY2008.

Proposal No.	Spokesperson	Title
2004S1-001	S. Koshihara Tokyo Inst. of Tech.	Consturction and utilization of sub-nanosecond resolved diffraction beamlines to search for strongly correlated materials in the non-equilibrium states
2006S1-001	M. Fujinami Chiba Univ.	Development of positron microscope
2006S2-001	A. Fujimori Univ. of Tokyo	High resolution angle-resolved photoemission study of strongly correlated transition metal oxides
2006S2-002	K. Mase KEK-PF	Study of core-excitations, Auger decay, and ion desorption using coincidence spectroscopy
2006S2-003	K. Akimoto Nagoya Univ.	X-ray diffraction studies on structural analysis and controls of semiconductor surfaces and interfaces
2006S2-004	H. Sawa KEK-PF	Direct observation of electron density of molecular orbital using synchrotron radiation X-ray MEM analysis
2006S2-005	R. Kumai AIST	Structure analysis for the physical property study of the correlated electron system
2006S2-006	S. Wakatsuki KEK-PF	Protein 3000 project Target oriented structural genomics of protein 3000 project
2007S2-001	E. Ohtani Tohoku Univ.	In situ X-ray imaging of melts at high pressure, and its applications to the earth and planetary interior
2008S2-001	T. Tsukihara Osaka Univ.	Target protein research program
2008S2-002	M. Ando Tokyo Univ. of Sci.	Basic study of high performance refraction-based X-ray imaging toward clinical and pathological application
2008S2-003	M. Oshima Univ. of Tokyo	Electronic structure analysis of new functional materilas by high-resolution nano-spectroscopy
2008S2-004	Y. Wakabayashi KEK-PF	Structural materials science under magnetic fields -- mainly on magnetic field induced phase transition --

proposals, respectively. The number of current G-type proposals each year has been over 600 for the past few years and was 805 in FY2008. Every proposal is effective for two years. A full list of the proposals effective in FY2008 and their scientific output can be found in PART-B of this volume.

S-type proposals are divided into two categories, S1 and S2. S1 proposals are self-contained projects of excellent scientific quality, and include projects such as the construction and improvement of beamlines and experimental stations which will be available for general

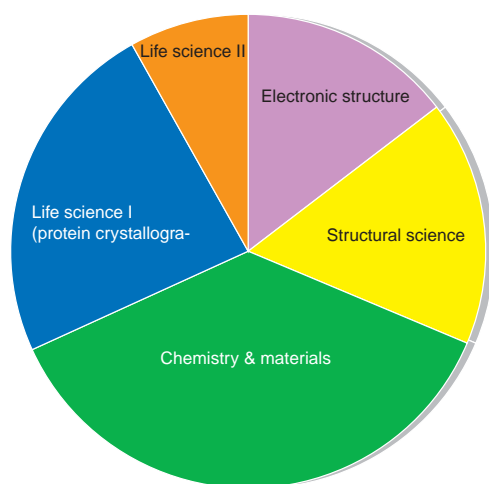


Figure 1
Distribution by scientific field of experimental proposals accepted in FY2008.

Table 3 List of C-type and Y-type proposals accepted in FY2008.

Proposal Number	Company
2008C001	Astellas Pharma Inc.
2008C002	Fuji Photo Film Co., Ltd.
2008C003	Nippon Steel Corp.
2008C004	Mitsui Chemical Analysis & Consulting Service Inc.
2008C005	ERATO, JST
2008C006	JT
2008C007	Center Res. Inst. Electric Power Industry
2008C008	Fujitsu Laboratories Ltd.
2008C009	Mitsubishi Chemical Co.
2008C010	Toyota Central R&D Labs. Inc.
2008C011	Hitachi, Ltd.
2008C012	Nikon Corp.
2008C013	Ohyo Koken Kogyo Co., Ltd.
2008C014	JFE Steel Corp.
2008C015	Canon Inc.
2008C016	Toray Research Center, Inc.
2008C017	Toppan Printing Co., Ltd.
2008C018	NEC

users after the completion of the project. S2 proposals are superior-grade projects that require the full use of synchrotron radiation or a large amount of beam time. After passing strict refereeing procedures, S-type proposals are supported financially by the PF. Table 2 shows a list of the S-type projects effective in FY2008. The current status and results to date of S1 and S2 proposals must be reported at the poster session of the PF Symposium held at the end of every Japanese fiscal year. The scientific output of S1 and S2 proposals is presented in the Highlights of PART-A and in the Users' Reports of PART-B of this volume.

Proposals are categorized into five scientific disciplines, and reviewed by the five subcommittees of PF-PAC: 1) electronic structure, 2) structural science, 3) chemistry and new materials, 4) life science I (protein crystallography), and 5) life science II. Figure 1 shows a distribution chart by research field of the proposals accepted by the subcommittees in FY2008.

1-2 Industrial Proposals

In addition to the S, U, G, and P-type proposals, two proposal categories are open for researchers from private companies, who can join collaborative (C-type) proposals with PF staff or submit their own proposals to the Y-type proposals. As listed in Table 3, 18 C-type and 22 Y-type proposals were accepted in FY2008.

A MEXT project, the Open Advanced Facilities Initiative for Innovation (Strategic Use by Industry), started in 2007 to promote industrial applications of advanced

Proposal Number	Company	BL
2008Y001	Kyowa Hakko Kogyo Co. Ltd.	5A, 17A, NW12A
2008Y002	Eisai Co. Ltd.	5A, 17A, NW12A
2008Y003	Astellas Pharma Inc.	5A, 17A, NW12A
2008Y004	PCProt	5A, 17A, NW12A
2008Y005	Chugai Pharmaceutical Co., Ltd.	5A, 17A, NW12A
2008Y006	Daiichi-Sankyo Co. Ltd.	5A, 17A, NW12A
2008Y007	Daiichi-Sankyo Co. Ltd.	5A, 17A, NW12A
2008Y008	Banyu Pharmaceutical Co., Ltd.	5A, 17A, NW12A
2008Y009	AJINOMOTO Co., Inc.	5A, 17A, NW12A
2008Y010	Toray Research Center, Inc.	9A, 12C, NW10A
2008Y011	Sumitomo Chemical Co., Ltd.	9A, 12C, NW10A
2008Y012	Mitsubishi Chemical Co.	5A, 17A, NW12A
2008Y013	NIMS	15C
2008Y014	Sony Co.	11B
2008Y015	Sony Co.	11A, 11B
2008Y016	Sony Co.	11A
2008Y017	Hitachi, Ltd.	14C1
2008Y018	Sony Co.	11B
2008Y019	Univ. of Queensland	20B
2008Y020	Hitachi, Ltd.	14C1
2008Y021	Sony Co.	11A, 11B
2008Y022	Nagoya Inst. Tech.	4B2

facilities. A proposal from Photon Factory, Strategic Industrial Application of the Photon Factory, is adopted and seven industrial programs were initiated in FY2008.

1-3 Statistics of the Proposals

Figure 2 shows the change in the number of registered users over the period 1993-2008. The total number increased gradually until 1995, reached a constant number of about 2,400 users, and increased again after 2000. The number of registered users exceeded 3,000 after FY2006. The temporary decrease in 1997 and 2005 was due to the long shut down for the high-brilliance renovation of the PF ring and for the straight-section upgrade project, respectively.

The number of scientific proposals over the period 1992-2008 is shown in Fig. 3. The number of proposals gradually increased until 1995, and reached a constant number of about 600 to 700 proposals per year. It should be mentioned that we accept over 20 proposals per year (21 proposals in FY2008) from overseas, amounting to about 6.0% of the total number of proposals (833 proposals in FY2008), as shown in Fig. 4. Most of these proposals are carried out in cooperation with Japanese researchers, and are considered as international collaborations.

The spokesperson of each proposal is requested

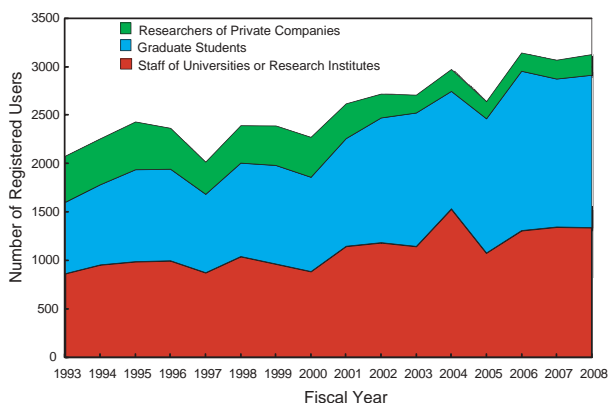


Figure 2 Number of registered PF users over the period 1993-2008.

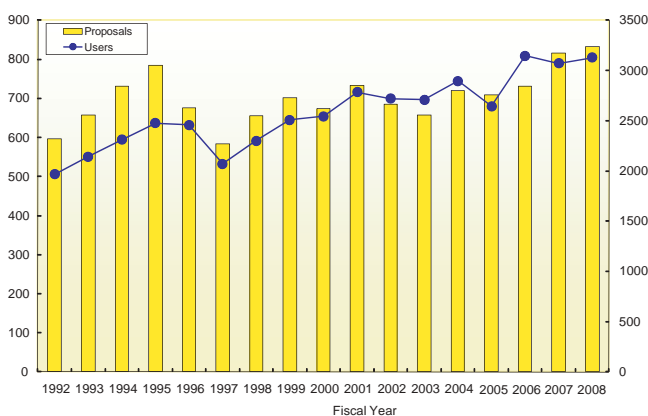


Figure 3 Number of registered PF users and proposals over the period 1992-2008.

to notify the PF of published papers and reviews which are based on experiments carried out at the PF. These publications, together with publications by PF staff, are compiled in a database which can be accessed through <http://pfwww.kek.jp/>. A list of recent publications is found in appendices. Figure 5 shows the distribution by scientific field of publications during 1998-2008.

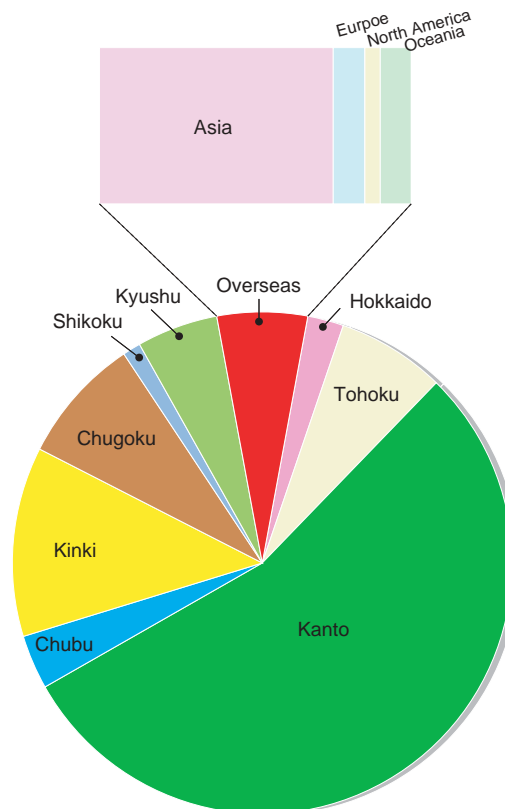


Figure 4 Regional distribution of the spokespersons of proposals accepted in FY2008. Note that proposals for BL-20B of the ANBF are not included in this figure.

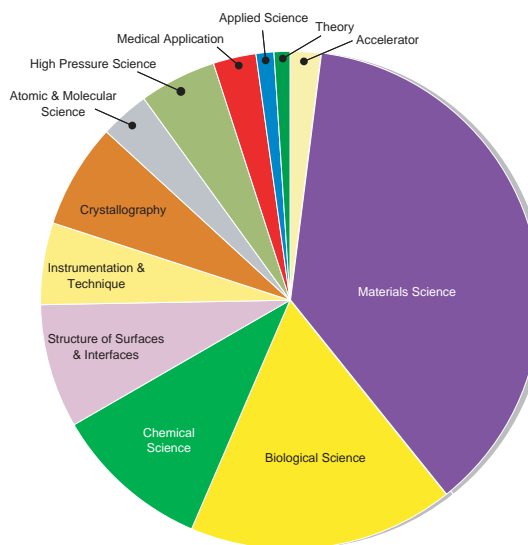


Figure 5 Distribution of publications by scientific fields over the period 1998-2008.