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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 Committee (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 1994-2006 is shown in Table 1, where S1/S2, U, G, and P denote Special, Urgent, General and Preliminary proposals. The number of current G-type proposals at any time has been over 600 for the past few years and was 692 in FY2006. Every proposal is effective for two years. A full list of the proposals effective in FY2006

Table 1 Number of proposals accepted for the period 1995-2006.

FY	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
S1			3	1	0	0	0	0	1	1	0	1
S2	0	2	1	3	3	2	2	3	2	0	3	6
U		2	1	4	2	0	5	3	2	4	0	1
G	365	260	303	333	323	308	339	321	318	382	310	388
P	14	10	6	14	22	17	18	16	9	13	10	22

Table 2 List of S-type proposals effective in FY2006.

Proposal No.	Spokesperson	Title
2004S1-001	S. Koshihara Tokyo Inst. of Tech	Construction and utilization of sub-nanosecond resolved diffraction beamlines to search for strongly correlated materials in the non-equilibrium states
2005S2-001	T. Takeda Univ. of Tsukuba	<i>In vivo</i> observation of live objects by phase-contrast imaging using separate X-ray interferometer-part III-
2005S2-002	M. Oshima Univ. of Tokyo	<i>In-situ</i> analysis of semiconductor/magnetic nanostructures by combinatorial high-resolution photoelectron spectroscopy
2005S2-003	T. Arima Tohoku Univ.	Synchrotron X-ray diffraction study of structural phase transitions induced by magnetic field
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

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 quality, and include projects such as the construction and improvement of beamlines and experimental stations which will be available for general 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 FY2006. The current status and results to date of S1 and S2 proposals must

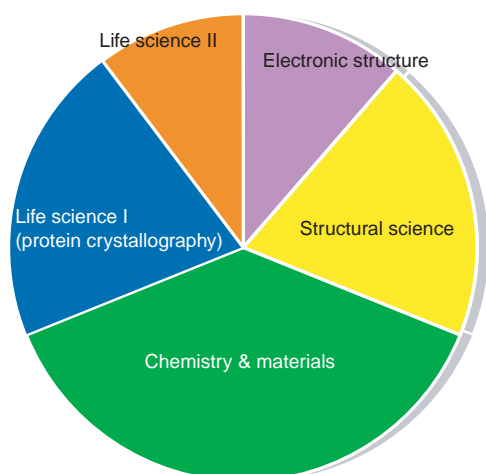


Figure 1
Distribution by scientific field of experimental proposals accepted in FY2006.

Table 3 List of C-type and Y-type proposals accepted in FY2006.

Proposal Number	Company	BL	Proposal Number	Company	BL
2006C001	Fuji Photo Film Co., Ltd.		2006Y001	NIMS	15C
2006C002	Sankyo Co., Ltd.		2006Y002	Toray Research Center, Inc.	NW12A
2006C003	Toshiba IPSS		2006Y003	Sumitomo Chemical Co., Ltd.	9A, 9C, NW10A
2006C004	Nippon Steel Corp.		2006Y004	Kyowa Hakko Kogyo Co. Ltd.	5A, 17A, NW12A
2006C005	Toyota Central R&D Labs. Inc.		2006Y005	Daiichi-Sankyo Co. Ltd.	5A, 17A, NW12A
2006C006	Toray Research Center, Inc.		2006Y006	Eisai Co. Ltd.	5A, 17A, NW12A
2006C007	Fujitsu Laboratories Ltd.		2006Y007	Chugai Phama. Co., Ltd.	5A, 17A, NW12A
2006C008	Nikkyo Technos Co., Ltd		2006Y008	Sony Co.	11B
2006C009	Astellas Pharma. Inc.		2006Y009	AJINOMOTO Co., Inc.	5A, 17A, NW12A
2006C010	JT		2006Y010	Mitsubishi Chemical Co.	5A, 17A, NW12A
2006C011	Canon Inc.		2006Y011	Sankyo Co., Ltd.	5A, 17A, NW12A
2006C012	Mitsubishi Chemical Co.,		2006Y012	Bnyu Phama. Co., Ltd.	5A, 17A, NW12A
2006C013	Mitsui Chemical Analysis & Consulting Service Inc.		2006Y013	Astellas Pharma. Inc.	5A, 17A, NW12A
2006C014	Hitachi, Ltd.		2006Y014	Nagoya Inst. Tech.	4B2
2006C015	Toray Research Center, Inc.		2006Y015	Sony Co.	11A
2006C016	Nikon Corp.		2006Y016	Mitsubishi Chemical Co.	9A
2006C017	Ohyo Koken Kogyo Co., Ltd.		2006Y017	Teijin Pharma Ltd.	NW12A
2006C018	Center Res. Inst. Electric Power Industry				
2006C019	Nippon Oil Corp.				
2006C020	Nippon Oil Corp.				
2006C021	JFE Steel Corp.				
2006C022	Protein Wave Co.				
2006C023	Sumitomo Chemical				
2006C024	ERATO, JST				

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. Fig. 1 shows a distribution chart by research field of the proposals accepted by the subcommittees in FY2006.

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, 24 C-type and 17 Y-type proposals were accepted in FY 2006.

1-3 Statistics of the Proposals

Figure 2 shows the change in the number of registered users over the period 1991-2006. The total number increased gradually until 1995, reached a constant number of about 2,400 users, and increased again after 2000. The temporary decrease in 1997 and 2005 was due to the long shut down for the high-brilliance renovation of the PF storage ring and for the straight-section

*C-type proposals are submitted by PF staff members in collaboration with private companies etc.

**Y-type proposals are submitted by researchers of private companies etc.

upgrade project, respectively.

The spokesperson of each proposal is requested 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 PART-B. Figure 3 shows the distribution by scientific field of publications during 1997-2006.

It should be mentioned that we accept over 20 proposals per year (32 proposals in FY2006) from overseas, amounting to about 5% of the total number of proposals (702 proposals in FY2006), as shown in Fig. 4. Most of these proposals are carried out in cooperation with Japanese researchers, and are considered as international collaborations.

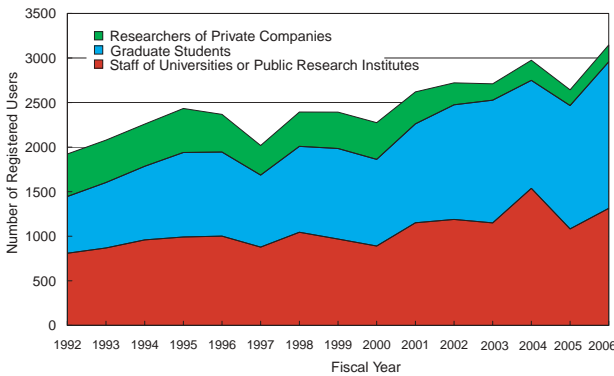


Figure 2
Number of registered PF users over the period 1992-2006.

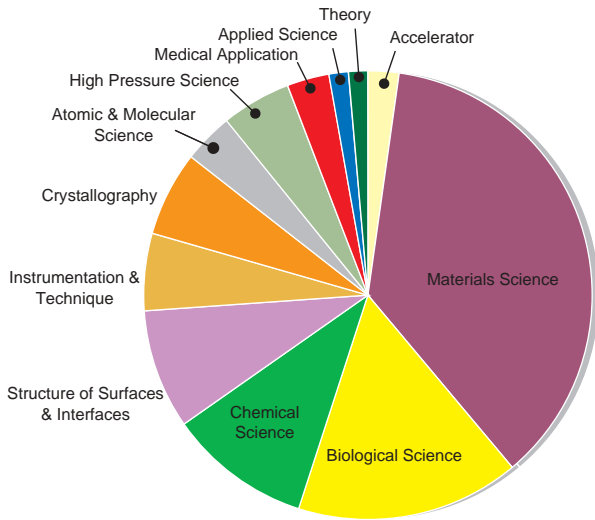


Figure 3
Distribution of publications by scientific fields over the period 1998-2006.

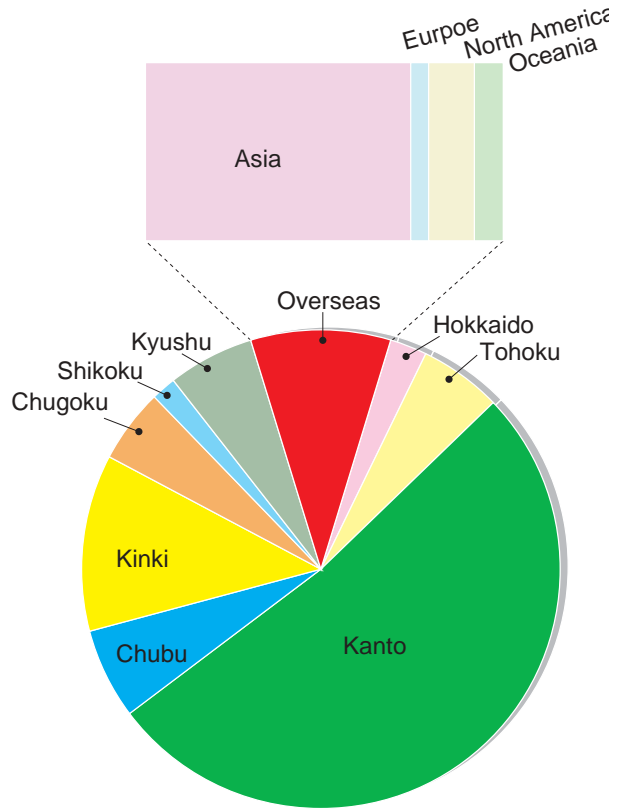


Figure 4
Regional distribution of the spokespersons of proposals accepted in FY2006. Note that proposals for BL-20B of the ANBF are not included in this figure.