

1-1 Scientific Proposals

The Photon Factory accepts experimental proposals submitted by researchers mainly at universities and research institutes inside and outside Japan. Experimental 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 1994-2005 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 702 in FY2005. Every proposal is effective for two years. A full list of experimental proposals effective in FY2005 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 FY2005. 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 disci-

Table 1 Number of proposals accepted for the period 1994-2005.

FY	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
S1				3	1	0	0	0	0	1	1	0
S2	1	0	2	1	3	3	2	2	3	2	0	3
U			2	1	4	2	0	5	3	2	4	0
G	369	365	260	303	333	323	308	339	321	318	382	303
P	15	14	10	6	14	22	17	18	16	9	13	10

Table 2 List of S-type proposals effective in FY2005.

Proposal No.	Spokesperson	Title
2003S1-001	H. Sawa KEK-PF	New beamline construction for research of strongly correlated electron systems
2003S2-001	K. Akimoto Nagoya Univ.	X-ray diffraction studies on structural analysis and controls of semiconductor surfaces and interfaces
2003S2-002	S. Wakatsuki KEK-PF	Target oriented structural genomics of the Protein 3000 Project
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
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

plines, 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 FY2005.

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 PF-PAC (Y-type). As listed in PART-B, 28 C-type and 2 Y-type proposals were effective in FY 2005.

1-3 Statistics of the Proposals

Figure 2 shows the change in the number of registered users over the period 1991-2005. 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 upgrade project.

The spokesperson of each proposal is requested to notify the PF of published papers or 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 1997-2005.

It should be mentioned that we accept over 20 proposals per year (32 proposals in FY2005) from overseas, amounting to about 5% of the total number of proposals (702 proposals in FY2005), as shown in Fig. 4. Most of these proposals are carried out in cooperation with Japanese researchers, and are considered as international collaborations.

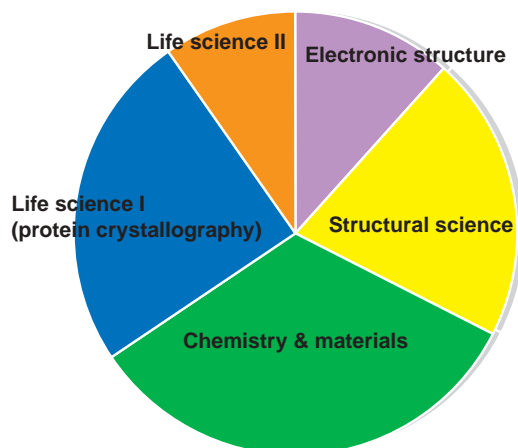


Figure 1
Distribution by scientific field of experimental proposals accepted in FY2005.

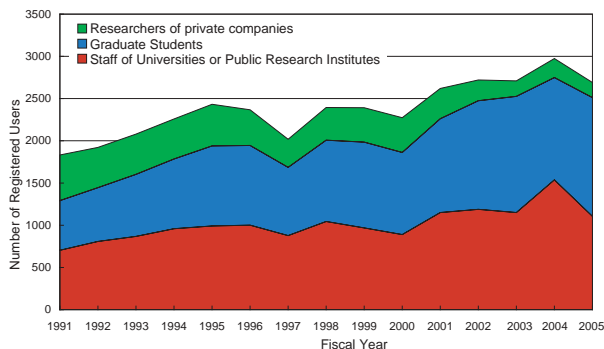


Figure 2
Number of registered PF users over the period 1991-2005.

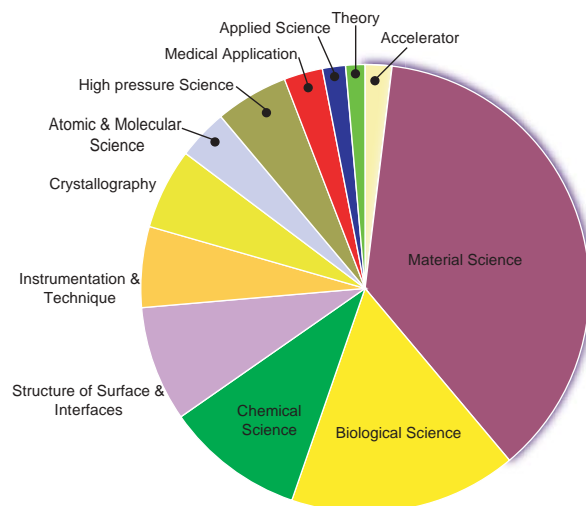


Figure 3
Distribution of publications by scientific fields over the period 1997-2005.

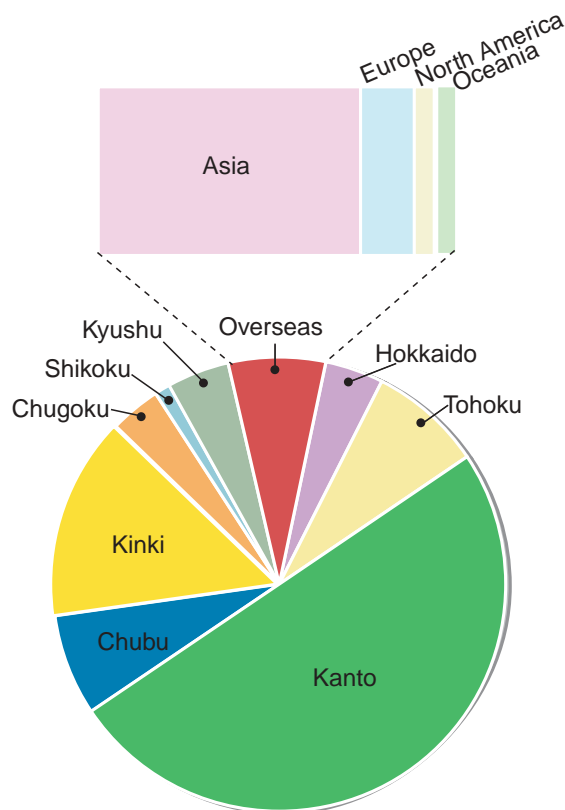


Figure 4
Regional distribution of the spokespersons of proposals accepted in FY2005. Note that proposals for BL-20B of the ANBF are not included in this figure.