

Chapter 5 Publications

This Chapter summarizes the publications at SPring-8: Refereed Papers (Refereed Journal, Refereed Proceeding and doctoral dissertation), Proceedings, Review (Review and Journal article) Invited Talks, Patents (Include patent pending) and Awards.

Table 5-1 Summary of publications (May 31, 2006)

| Beamline | | Journals | | | | Talks | Others | | First Beam |
|------------------|--------------------------------------|----------|---------|-------|--------|---------|--------|-------|------------|
| | | Total | Ref. P. | Proc. | Review | Invited | Patent | Award | |
| Public Beamlines | | | | | | | | | |
| BL01B1 | XAFS | 206 | 161 | 33 | 12 | 5 | 5 | 1 | Oct. 1997 |
| BL02B1 | Single Crystal Structure Analysis | 87 | 67 | 11 | 9 | 14 | 0 | 0 | Oct. 1997 |
| BL02B2 | Powder Diffraction | 229 | 194 | 14 | 21 | 27 | 3 | 4 | Sep. 1999 |
| BL04B1 | High Temperature and High Pressure | 114 | 85 | 8 | 21 | 16 | 0 | 0 | Oct. 1997 |
| BL04B2 | High Energy X-ray Diffraction | 81 | 60 | 6 | 15 | 10 | 0 | 0 | Sep. 1999 |
| BL08W | High Energy Inelastic Scattering | 80 | 62 | 6 | 12 | 44 | 3 | 5 | Oct. 1997 |
| BL09XU | Nuclear Resonant Scattering | 67 | 49 | 11 | 7 | 11 | 0 | 1 | Oct. 1997 |
| BL10XU | High Pressure Research | 168 | 139 | 11 | 18 | 9 | 2 | 0 | Oct. 1997 |
| BL13XU | Surface and Interface Structures | 54 | 41 | 6 | 7 | 10 | 9 | 0 | Sep. 2001 |
| BL19B2 | Engineering Science Research | 70 | 47 | 18 | 5 | 4 | 3 | 6 | Nov. 2001 |
| BL20XU | Medical and Imaging II | 45 | 25 | 12 | 8 | 11 | 2 | 1 | Sep. 2001 |
| BL20B2 | Medical and Imaging I | 136 | 77 | 39 | 20 | 17 | 2 | 6 | Sep. 1999 |
| BL25SU | Soft X-ray Spectro-scopy of Solid | 153 | 139 | 1 | 13 | 54 | 0 | 7 | Apr. 1998 |
| BL27SU | Soft X-ray Photochemistry | 134 | 120 | 8 | 6 | 35 | 0 | 0 | May 1998 |
| BL28B2 | White Beam X-ray Diffraction | 42 | 28 | 7 | 7 | 2 | 1 | 0 | Sep. 1999 |
| BL35XU | High Resolution Inelastic Scattering | 24 | 18 | 3 | 3 | 11 | 0 | 0 | Sep. 2001 |
| BL37XU | Trace Element Analysis | 39 | 26 | 3 | 10 | 3 | 0 | 0 | Nov. 2002 |
| BL38B1 | Structural Biology III | 87 | 76 | 6 | 5 | 6 | 1 | 1 | Oct. 2000 |
| BL39XU | Magnetic Materials | 110 | 80 | 6 | 24 | 24 | 0 | 3 | Oct. 1997 |
| BL40XU | High Flux | 50 | 31 | 4 | 15 | 29 | 0 | 0 | Apr. 2000 |
| BL40B2 | Structural Biology II | 157 | 136 | 6 | 15 | 14 | 3 | 4 | Sep. 1999 |
| BL41XU | Structural Biology I | 229 | 207 | 2 | 20 | 12 | 1 | 0 | Oct. 1997 |
| BL43IR | Infrared Materials Science | 43 | 28 | 10 | 5 | 0 | 0 | 1 | Apr. 2000 |
| BL46XU | R&D | 29 | 25 | 2 | 2 | 0 | 1 | 0 | Nov. 2000 |
| BL47XU | HXPES · MCT | 121 | 79 | 26 | 16 | 21 | 2 | 4 | Oct. 1997 |

| Beamline | Journals | | | | Talks | Others | | First Beam | |
|-----------------------------|----------------------------------|---------|-------|--------|---------|--------|-------|------------|-----------|
| | Total | Ref. P. | Proc. | Review | Invited | Patent | Award | | |
| RIKEN Beamlines | | | | | | | | | |
| BL17SU | Coherent Soft X-ray Spectroscopy | 7 | 7 | 0 | 0 | 0 | 0 | 0 | Sep. 2003 |
| BL19LXU | SR Physics | 38 | 29 | 4 | 5 | 29 | 0 | 1 | Feb. 2002 |
| BL26B1 | Structural Genomics I | 62 | 53 | 1 | 8 | 2 | 0 | 0 | Feb. 2003 |
| BL26B2 | Structural Genomics II | 17 | 10 | 1 | 6 | 0 | 0 | 0 | Jun. 2003 |
| BL29XU | Coherent X-ray Optics | 89 | 70 | 12 | 7 | 18 | 0 | 0 | Feb. 2002 |
| BL44B2 | Structural Biology II | 148 | 138 | 2 | 8 | 2 | 0 | 0 | May 1998 |
| BL45XU | Structural Biology I | 185 | 148 | 9 | 28 | 9 | 1 | 1 | Oct. 1997 |
| Contract Beamlines | | | | | | | | | |
| BL11XU | Quantum Dynamics | 41 | 37 | 2 | 2 | 4 | 0 | 0 | Mar. 1999 |
| BL12XU | NSRRC ID | 10 | 6 | 4 | 0 | 0 | 0 | 0 | Feb. 2003 |
| BL12B2 | NSRRC BM | 28 | 28 | 0 | 0 | 0 | 0 | 0 | Sep. 2001 |
| BL14B1 | Materials Science | 80 | 53 | 7 | 20 | 14 | 4 | 1 | Apr. 1998 |
| BL15XU | WEBRAM | 30 | 21 | 5 | 4 | 3 | 0 | 0 | Apr. 2001 |
| BL16XU | Industrial Consortium ID | 23 | 14 | 3 | 6 | 4 | 1 | 0 | Sep. 1999 |
| BL16B2 | Industrial Consortium BM | 34 | 19 | 7 | 8 | 1 | 2 | 0 | Sep. 1999 |
| BL22XU | Quantum Structural Science | 9 | 7 | 1 | 1 | 0 | 0 | 2 | May 2002 |
| BL23SU | Actinide Science | 105 | 75 | 13 | 17 | 19 | 0 | 0 | Jun. 1998 |
| BL24XU | Hyogo ID | 113 | 85 | 10 | 18 | 14 | 7 | 0 | Oct. 1998 |
| BL32B2 | Pharmaceutical Industry | 11 | 10 | 0 | 1 | 0 | 0 | 0 | Sep. 2002 |
| BL33LEP | Laser-Electron Photon | 37 | 13 | 22 | 2 | 17 | 0 | 1 | Oct. 2000 |
| BL44XU | Macromolecular Assemblies | 68 | 57 | 0 | 11 | 7 | 0 | 0 | Feb. 2000 |
| Accelerator Beamline | | | | | | | | | |
| BL05SS | Accelerator Beam Diagnosis | 0 | 0 | 0 | 0 | 0 | 0 | 0 | Mar. 2004 |
| BL38B2 | Accelerator Beam Diagnosis | 1 | 0 | 1 | 0 | 0 | 0 | 0 | Jan. 2000 |
| Hardware/Software R&D | | | | | | | | | |
| Instruments & Technique | | 94 | 53 | 27 | 14 | 12 | 0 | 0 | |
| Optics | | 63 | 45 | 10 | 8 | 7 | 0 | 2 | |
| Control | | 20 | 14 | 5 | 1 | 0 | 0 | 0 | |
| Front End | | 17 | 10 | 7 | 0 | 1 | 0 | 0 | |
| Insertion Device | | 63 | 47 | 10 | 6 | 0 | 1 | 0 | |
| Accelerator | | 402 | 94 | 294 | 14 | 14 | 3 | 0 | |
| General | | 67 | 13 | 10 | 44 | 16 | 0 | 0 | |
| Theory | | 6 | 6 | 0 | 0 | 0 | 0 | 0 | |
| Others | | 2 | 2 | 0 | 0 | 0 | 17 | 0 | |
| Total (with multiple count) | | 4425 | 3164 | 726 | 535 | 582 | 74 | 52 | |
| Total (Net) | | 3723 | 2693 | 634 | 396 | 470 | 58 | 14 | |

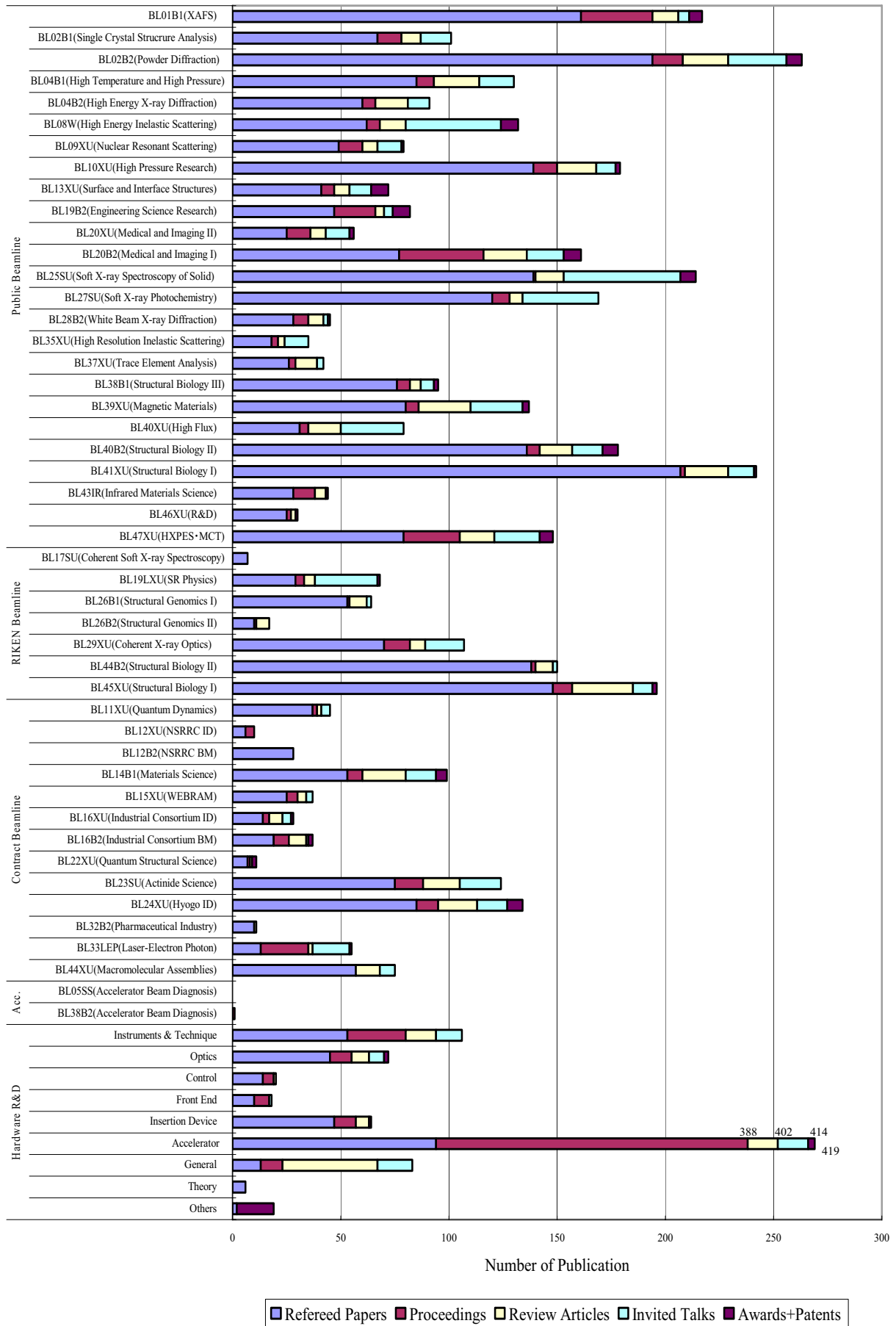


Figure 5-1 Summary of publications (May 31, 2006)

Table 5-2 Publications of refereed papers (May 31, 2006)

| Beamline | | ~1997 | 1998 | 1999 | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | Total |
|-------------------------|---------------------------------------|-------|------|------|------|------|------|------|------|------|------|-------|
| Public Beamlines | | | | | | | | | | | | |
| BL01B1 | XAFS | 0 | 0 | 15 | 17 | 34 | 24 | 17 | 17 | 26 | 11 | 161 |
| BL02B1 | Single Crystal Structure Analysis | 0 | 2 | 5 | 3 | 9 | 15 | 13 | 9 | 9 | 2 | 67 |
| BL02B2 | Powder Diffraction | 0 | 0 | 0 | 15 | 26 | 35 | 46 | 37 | 27 | 8 | 194 |
| BL04B1 | High Temperature and High Pressure | 0 | 3 | 4 | 9 | 13 | 17 | 8 | 21 | 9 | 1 | 85 |
| BL04B2 | High Energy X-ray Diffraction | 0 | 0 | 0 | 0 | 6 | 15 | 8 | 17 | 10 | 4 | 60 |
| BL08W | High Energy Inelastic Scattering | 2 | 5 | 0 | 4 | 14 | 5 | 10 | 9 | 8 | 5 | 62 |
| BL09XU | Nuclear Resonant Scattering | 0 | 0 | 5 | 5 | 4 | 10 | 13 | 5 | 6 | 1 | 49 |
| BL10XU | High Pressure Research | 0 | 2 | 10 | 12 | 20 | 21 | 19 | 20 | 27 | 8 | 139 |
| BL13XU | Surface and Interface Structures | 0 | 0 | 0 | 0 | 0 | 0 | 7 | 12 | 17 | 5 | 41 |
| BL19B2 | Engineering Science Research | 0 | 0 | 0 | 0 | 0 | 0 | 6 | 14 | 20 | 7 | 47 |
| BL20XU | Medical and Imaging II | 0 | 0 | 0 | 0 | 0 | 2 | 13 | 4 | 5 | 1 | 25 |
| BL20B2 | Medical and Imaging I | 0 | 0 | 0 | 4 | 14 | 16 | 12 | 24 | 5 | 2 | 77 |
| BL25SU | Soft X-ray Spectroscopy of Solid | 0 | 2 | 6 | 14 | 17 | 23 | 13 | 30 | 30 | 4 | 139 |
| BL27SU | Soft X-ray Photochemistry | 0 | 3 | 2 | 8 | 10 | 19 | 16 | 23 | 34 | 5 | 120 |
| BL28B2 | White Beam X-ray Diffraction | 0 | 0 | 0 | 1 | 1 | 1 | 9 | 7 | 8 | 1 | 28 |
| BL35XU | High Resolution Inelastic Scattering | 0 | 0 | 0 | 1 | 2 | 0 | 5 | 6 | 4 | 0 | 18 |
| BL37XU | Trace Element Analysis | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 12 | 10 | 3 | 26 |
| BL38B1 | Structural Biology III | 0 | 0 | 0 | 0 | 1 | 3 | 13 | 25 | 27 | 7 | 76 |
| BL39XU | Magnetic Materials | 0 | 4 | 8 | 7 | 18 | 5 | 11 | 15 | 11 | 1 | 80 |
| BL40XU | High Flux | 0 | 0 | 1 | 1 | 3 | 3 | 3 | 9 | 9 | 2 | 31 |
| BL40B2 | Structural Biology II | 0 | 0 | 0 | 1 | 15 | 23 | 29 | 31 | 28 | 9 | 136 |
| BL41XU | Structural Biology I | 1 | 1 | 13 | 14 | 21 | 30 | 35 | 44 | 40 | 8 | 207 |
| BL43IR | Infrared Materials Science | 0 | 0 | 0 | 0 | 5 | 1 | 5 | 6 | 10 | 1 | 28 |
| BL46XU | R&D | 0 | 0 | 0 | 1 | 0 | 3 | 6 | 3 | 7 | 5 | 25 |
| BL47XU | HXPES · MCT | 0 | 2 | 4 | 9 | 13 | 9 | 5 | 16 | 19 | 2 | 79 |
| RIKEN Beamlines | | | | | | | | | | | | |
| BL17SU | RIKEN Coherent Soft-Xray Spectroscopy | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 5 | 0 | 7 |
| BL19LXU | RIKEN SR Physics | 0 | 1 | 0 | 0 | 4 | 3 | 2 | 12 | 6 | 1 | 29 |
| BL26B1 | RIKEN Structural Genomics I | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 18 | 30 | 3 | 53 |
| BL26B2 | RIKEN Structural Genomics II | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 5 | 4 | 0 | 10 |
| BL29XU | RIKEN Coherent X-ray Optics | 0 | 0 | 0 | 2 | 15 | 9 | 18 | 12 | 13 | 1 | 70 |
| BL44B2 | RIKEN Structural Biology II | 0 | 0 | 5 | 13 | 21 | 22 | 30 | 24 | 20 | 3 | 138 |
| BL45XU | RIKEN Structural Biology I | 1 | 2 | 5 | 19 | 22 | 19 | 30 | 29 | 19 | 2 | 148 |

| Beamline | ~1997 | 1998 | 1999 | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | Total | |
|-----------------------------|----------------------------|------|------|------|------|------|------|------|------|------|-------|------|
| Contract Beamlines | | | | | | | | | | | | |
| BL11XU | JAERI Materials Science II | 0 | 1 | 1 | 3 | 3 | 5 | 6 | 8 | 6 | 4 | 37 |
| BL12XU | NSRRC ID | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 5 | 0 | 6 |
| BL12B2 | NSRRC BM | 0 | 0 | 0 | 0 | 1 | 3 | 12 | 11 | 1 | 0 | 28 |
| BL14B1 | JAERI Materials Science I | 0 | 2 | 0 | 4 | 6 | 16 | 10 | 8 | 6 | 1 | 53 |
| BL15XU | WEBRAM | 0 | 0 | 0 | 0 | 2 | 10 | 2 | 4 | 2 | 1 | 21 |
| BL16XU | Industrial Consortium ID | 0 | 0 | 0 | 1 | 1 | 1 | 4 | 4 | 4 | 2 | 14 |
| BL16B2 | Industrial Consortium BM | 0 | 0 | 0 | 0 | 9 | 3 | 1 | 1 | 2 | 3 | 19 |
| BL22XU | JAERI Actinide Science II | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 4 | 2 | 7 |
| BL23SU | JAERI Actinide Science I | 0 | 2 | 1 | 3 | 15 | 12 | 15 | 15 | 9 | 3 | 75 |
| BL24XU | Hyogo ID | 0 | 2 | 3 | 13 | 21 | 17 | 10 | 11 | 7 | 1 | 85 |
| BL32B2 | Pharmaceutical Industry | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 6 | 3 | 1 | 10 |
| BL33LEP | Laser-Electron Photon | 0 | 2 | 2 | 3 | 3 | 2 | 1 | 0 | 0 | 0 | 13 |
| BL44XU | Macromolecular Assemblies | 0 | 0 | 0 | 0 | 1 | 9 | 10 | 16 | 17 | 4 | 57 |
| Accelerator Beamlines | | | | | | | | | | | | |
| BL05SS | Accelerator Beam Diagnosis | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| BL38B2 | Accelerator Beam Diagnosis | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Hardware/Software R&D | | | | | | | | | | | | |
| Instruments & Technique | | 0 | 1 | 4 | 4 | 16 | 6 | 10 | 5 | 5 | 2 | 53 |
| Optics | | 0 | 5 | 1 | 0 | 17 | 5 | 7 | 4 | 6 | 0 | 45 |
| Control | | 4 | 1 | 1 | 0 | 7 | 0 | 0 | 0 | 1 | 0 | 14 |
| Front End | | 2 | 6 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 10 |
| Insertion Device | | 7 | 15 | 1 | 4 | 10 | 5 | 2 | 2 | 1 | 0 | 47 |
| Accelerator | | 50 | 7 | 7 | 4 | 10 | 2 | 2 | 8 | 3 | 1 | 94 |
| General | | 0 | 3 | 2 | 0 | 6 | 0 | 1 | 1 | 0 | 0 | 13 |
| Theory | | 1 | 0 | 0 | 0 | 0 | 1 | 1 | 2 | 1 | 0 | 6 |
| Others | | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 2 |
| Total (with multiple count) | | 68 | 74 | 107 | 199 | 439 | 430 | 498 | 625 | 587 | 138 | 3164 |
| Total (Net) | | 63 | 60 | 99 | 182 | 369 | 364 | 416 | 531 | 498 | 111 | 2693 |

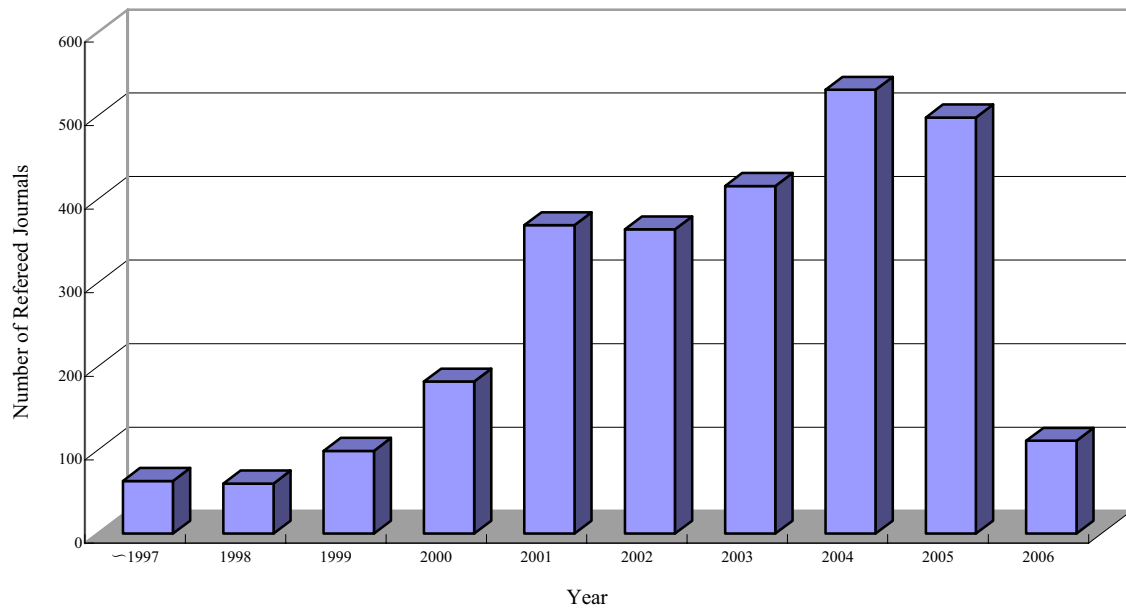


Figure 5-2 Total publications in refereed papers (May 31, 2006)

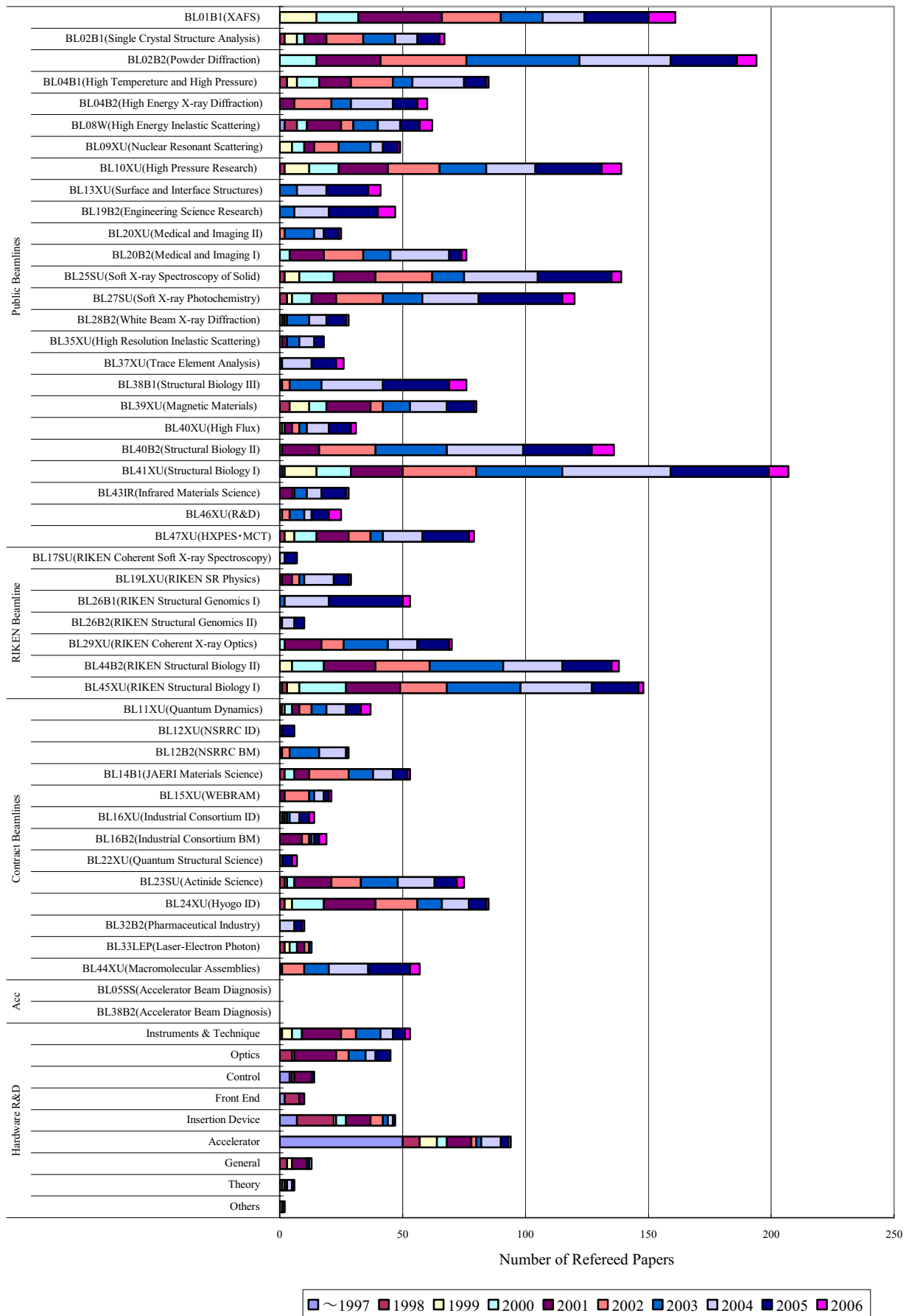


Figure 5-3 Publication of refereed papers (May 31, 2006)

Table 5-3 Number of publications in journals

| Journals | No. of J. |
|---|-----------|
| Nature | 28 |
| Research Disciplines | |
| <i>Nature Structural Biology / Nature Structural and Molecular Biology</i> | 16 |
| <i>Nature Materials</i> | 6 |
| Science | 12 |
| Cell | 8 |
| The EMBO Journal | 15 |
| Proceedings of the National Academy of Sciences of the United States of America | 32 |
| The Journal of Biological Chemistry | 72 |
| Journal of Molecular Biology | 65 |
| Structure | 26 |
| Physical Review | |
| <i>Letters</i> | 66 |
| <i>A, B, C, E, Special Topics - Accelerator and Beams</i> | 198 |
| Journal of Physics: Condensed Matter | 50 |
| Journal of the Physical Society of Japan | 74 |
| The Journal of Physical Chemistry B | 15 |
| Journal of the American Chemical Society | 22 |
| Angewandte Chemie International Edition | 12 |
| Chemical Physics Letters | 15 |
| Chemical Communications | 6 |
| Journal of Applied Physics | 36 |
| Applied Physics Letters | 32 |
| Japanese Journal of Applied Physics | 113 |
| Geophysical Research Letters | 13 |
| Earth and Planetary Science Letters | 6 |
| Physics of the Earth and Planetary Interiors | 15 |
| Review of Scientific Instruments | 48 |
| Journal of Synchrotron Radiation | 158 |
| Nuclear Instruments and Methods in Physics Research | |
| <i>Section A, B</i> | 177 |
| Acta Crystallographica | |
| <i>Section A, B, C, D, E, F</i> | 154 |
| Doctor Theses | 32 |
| | |
| Others | 1,171 |
| | |
| TOTAL | 2,693 |