

# CONTENTS

|  |     |
|--|-----|
| <b>Introduction .....</b>                        | 1   |
| <b>Memorials 2013 .....</b>                      | 3   |
| <b>Highlights</b>                                |     |
| 1. Materials Science .....                       | 12  |
| 2. Chemical Science .....                        | 30  |
| 3. Earth Science .....                           | 38  |
| 4. Life Science .....                            | 42  |
| 5. Imaging and Optics .....                      | 58  |
| 6. Instrumentation and Methodology .....         | 60  |
| 7. Accelerators .....                            | 62  |
| <b>Experimental Facilities</b>                   |     |
| 1. Newly Developed Experimental Facilities ..... | 67  |
| 2. Structural Biology Research Center .....      | 75  |
| 3. Condensed Matter Research Center .....        | 78  |
| 4. Slow Positron Facility .....                  | 81  |
| 5. IMSS Instrument R&D Team .....                | 83  |
| 6. Summary of Experimental Stations .....        | 84  |
| <b>Accelerators</b>                              |     |
| 1. Outline of the Accelerators .....             | 97  |
| 2. PF Ring .....                                 | 100 |
| 3. PF-AR .....                                   | 103 |
| <b>Future Light Source</b>                       |     |
| 1. ERL Project Overview .....                    | 109 |
| 2. cERL .....                                    | 110 |
| <b>Users Program &amp; Outreach Activities</b>   |     |
| 1. Experimental Proposals .....                  | 119 |
| 2. Workshops and Seminars .....                  | 122 |
| 3. Graduate School Education.....                | 123 |
| 4. International Collaboration .....             | 124 |
| <b>Appendices</b>                                |     |
| 1. Site and Organization .....                   | 126 |

Awards, Theses and Publication List are available on the PF's website(<http://pfwww.kek.jp/acr2013pdf/>).