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|--|--|--------|--------|--------------------------------|------------------------|--------|
| <b>Principal Researcher</b>                          | Kenji Morinaga   |        |        | <b>Number of Researchers</b>   | 3                      |        |
| <b>Research Institution<br/>· Department · Title</b> | Professor, Department of Engineering Sciences for<br>Electronics and Materials, Kyushu University  |        |        | <b>Location of Institution</b> | Kasuga-shi,<br>Fukuoka |        |
| <b>Title of Project</b>                              | Research and Development of New Photonic Glass Materials   |        |        |                                |                        |        |
| <b>Abstract of Research Project</b>                  | The development of new photonic devices is indispensable in order to progress the information technology. On the other hand, it is essential problem of how to utilize the slags from the environmental protection point of view. The purpose of this work is to research and develop new photonic materials, such as optical fiber amplifiers and ultrafast optical switching devices for telecommunications, by utilizing slags and glasses.   |        |        |                                |                        |        |
| <b>References</b>                                    | <ul style="list-style-type: none"> <li>· S. Fujino, and K. Morinaga, " Material Dispersion and Its Compositional Parameter of Oxide Glasses, " <i>J-Non-Cryst. Solids</i>, 222,316-320, (1997)</li> <li>· T. Murata, Y. Moriyama, and K. Morinaga, " Relationship between Local Structure and Spontaneous Emission Probability of Er<sup>3+</sup> in Silicate, Borate, and Phosphate Glasses, " <i>Science and Technology of Advanced Materials</i>, 1(3), 139-145, (2000).</li> </ul> |        |        |                                |                        |        |
| <b>Term of Project</b>                               | Fiscal Years 2002-2006 ( 5 years )   |        |        |                                |                        |        |
| <b>Budget Allocation</b>                             | FY2002   | FY2003 | FY2004 | FY2005                         | FY2006                 | TOTAL  |
| (in thousand of yen)                                 | 23,100   | 33,300 | 8,600  | 8,200                          | 7,000                  | 80,200 |
| <b>Homepage Address</b>                              | <a href="http://www.asem.kyushu-u.ac.jp/of/of02/">http://www.asem.kyushu-u.ac.jp/of/of02/</a>  |        |        |                                |                        |        |