

## Job Description [Bartosz GRZYBOWSK 그룹, 연구기술직, 1명]

|                                    |  |                             |   |                       |  |
|------------------------------------|--|-----------------------------|---|-----------------------|--|
| <b>Workplace</b>                   | Center for Algorithmic and Robotized Synthesis (Ulsan, UNIST)  | <b>Job Category (Level)</b> | Research Staff (Research Engineering Staff) | <b>Area of Hiring</b> | Research (Algorithmic and Robotized Synthesis) |
| <b>Work Duties</b>                 | Research on Algorithmic and Robotized Synthesis  |                             |   |                       |  |
| <b>Main Business of IBS</b>        | <p>Founded under the Special Act on Establishment of and Support for International Science and Business Belt, the Institute for Basic Science conducts fundamental research in the fields of basic science, contributing to developing and delivering scientific knowledge and innovative technology, as well as nurturing the next generation of scientists.</p> <ul style="list-style-type: none"> <li>• Basic science research</li> <li>• Interdisciplinary basic science research in science and technology</li> <li>• Convergence between basic science and humanities, social science and culture and arts</li> <li>• Polity research for setting the direction of basic science research</li> <li>• Programs for establishing and utilizing research facilities and equipment management, transfer, utilization and commercialization of research outcomes</li> </ul> |                             |   |                       |  |
| <b>Research Area</b>               | Computer-assisted synthesis planning and robotics to enable fundamental discovery in chemistry and biochemistry  |                             |   |                       |  |
| <b>Duties and Responsibilities</b> | <p><b><u>Research Assistance on AI-assisted Biochemical Synthesis</u></b></p> <ul style="list-style-type: none"> <li>- Assist to develop and operate synthesis robotic system prototypes (evaluate their design, functionality, and performance)</li> <li>- Design, validate, and execute robotic assays for testing compounds regarding physicochemical characteristics, biological activity, etc.</li> <li>- Utilize advanced statistical and computational tools to interpret experimental data accurately in order to guide the project direction</li> </ul>   |                             |   |                       |  |
| <b>Knowledge Required</b>          | Interdisciplinary Research on Computerized synthesis and Artificial intelligence AI applied to organic chemistry, Complex chemical networks and catalytic systems, Self-assembly in non-equilibrium regimes, Nanomaterials for catalysis and nanomedicine.   |                             |   |                       |  |
| <b>Competencies Required</b>       | Knowledge in related fields (Doctoral degree)  |                             |   |                       |  |
| <b>Attitude Required</b>           | The candidate should be passionate about basic science   |                             |   |                       |  |
| <b>Basic Skills Required</b>       | The candidate should have communication skills, problem-solving ability, interpersonal skills, technical competence, and professional ethics. The candidate should have a demonstrated history of thinking for themselves, having strong self-initiative, an excellent work ethic, working well at times individually and at times with others, and speak and write English well.  |                             |   |                       |  |
| <b>Qualification</b>               | <ul style="list-style-type: none"> <li>- Degree : Ph.D.</li> <li>- Major : Electrochemistry, Chemistry, Material Science, Physics, Mathematics, Biochemistry, Biophysics or Biology</li> <li>- Preference : Doctoral experience in study of mathematics, AI, organic chemistry, biochemistry.</li> </ul>   |                             |   |                       |  |
| <b>Screening</b>                   | [Stage 1] Document Screening ▶ [Stage 2] Interview   |                             |   |                       |  |

※This job description states major work duties of the hiring area. Work duties that are not stated here may need to be performed.  
 ※This position will remain open until filled.