

# Job Description ①

<b>Workplace</b>	Center for Artificial Low Dimensional Electronic Systems (POHANG, POSTECH)	<b>Job category (level)</b>	Postdoctoral research associate	<b>Area of hiring</b>	Research
<b>Work duties</b>	Density–functional calculations of low–dimensional electronic system				
<b>Main business of IBS</b>	<ul style="list-style-type: none"> <li>o Founded under the Special Act on Establishment of and Support for International Science and Business Belt, the Institute for Basic Science (IBS) 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.</li> <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>– Policy research for setting the direction of basic science research</li> <li>– Programs for establishing and utilizing research facilities and equipment</li> <li>– Management, transfer, utilization and commercialization of research outcomes</li> </ul>				
<b>Research area of the Center</b>	o Discovery of novel electronic, magnetic, and topological properties of low dimensional quantum materials				
<b>Duties and responsibilities</b>	o Research on density–functional calculations of low–dimensional electronic system				
<b>Knowledge required</b>	o Knowledge of Condensed matter physics / Density functional theory(Doctoral degree)				
<b>Competencies required</b>	<ul style="list-style-type: none"> <li>o Density functional theory calculations</li> <li>o STM / ARPES simulation</li> </ul>				
<b>Attitude required</b>	<ul style="list-style-type: none"> <li>o Communication through cooperation</li> <li>o rational thinking and action for solving problems</li> <li>o Creative work attitude for research in various fields of physics</li> </ul>				
<b>Basic Job Skills</b>	o Communication Skills, Numerical Skills, Problem–Solving Skills, Interpersonal Skills, Information Literacy, Organizational Understanding, Professional Ethics				
<b>Qualification</b>	<ul style="list-style-type: none"> <li>o Required Qualifications: Ph.D. degree in the related field such as solid–state physics, materials science(obtained within recent 5 years or to be obtained within 3 months from the expected start date(March 1, 2025))</li> <li>o Preference : Major in related fields such as Density–functional theory</li> </ul>				
<b>Screening</b>	o Stage 1: Document screening → Stage 2: Interview				

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

## Job Description ②

<b>Workplace</b>	Center for Artificial Low Dimensional Electronic Systems (POHANG, POSTECH)	<b>Job category (level)</b>	Postdoctoral research associate	<b>Area of hiring</b>	Research
<b>Work duties</b>	Magnetic resonance research of topological magnetic semimetals				
<b>Main business of IBS</b>	<ul style="list-style-type: none"> <li>o Founded under the Special Act on Establishment of and Support for International Science and Business Belt, the Institute for Basic Science (IBS) 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.</li> <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>- Policy research for setting the direction of basic science research</li> <li>- Programs for establishing and utilizing research facilities and equipment</li> <li>- Management, transfer, utilization and commercialization of research outcomes</li> </ul>				
<b>Research area of the Center</b>	o Discovery of novel electronic, magnetic, and topological properties of low dimensional quantum materials				
<b>Duties and responsibilities</b>	o Study of interplay between magnetic and topological properties emergent from topological magnetic semimetals				
<b>Knowledge required</b>	o Knowledge of solid state physics and magnetic resonance(Doctoral degree)				
<b>Competencies required</b>	o Basic physical property characterization				
<b>Attitude required</b>	<ul style="list-style-type: none"> <li>o Communication through cooperation</li> <li>o rational thinking and action for solving problems</li> <li>o Creative work attitude for research in various fields of physics</li> </ul>				
<b>Basic Job Skills</b>	o Communication Skills, Numerical Skills, Problem-Solving Skills, Interpersonal Skills, Information Literacy, Organizational Understanding, Professional Ethics				
<b>Qualification</b>	<ul style="list-style-type: none"> <li>o Required Qualifications: Ph.D. degree in the related field such as solid-state physics, materials science(obtained within recent 5 years or to be obtained within 3 months from the expected start date(March 1, 2025))</li> <li>o Preference : Major in related fields such as Condensed matter physics, material science</li> </ul>				
<b>Screening</b>	o Stage 1: Document screening → Stage 2: Interview				

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