

Job Description ①

Workplace	Center for Artificial Low Dimensional Electronic Systems (POHANG, POSTECH)	Job category (level)	Postdoctoral research associate	Area of hiring	Research
Work duties	Synthesis and single crystal growth of quantum materials				
Main business of IBS	<ul style="list-style-type: none"> 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. - Basic science research - Interdisciplinary basic science research in science and technology - Convergence between basic science and humanities, social science and culture and arts - Policy research for setting the direction of basic science research - Programs for establishing and utilizing research facilities and equipment - Management, transfer, utilization and commercialization of research outcomes 				
Research area of the Center	o Research on novel electronic, magnetic, and topological properties in low-dimensional quantum systems controlled at the atomic level				
Duties and responsibilities	o Materials synthesis and single crystal growth of low-dimensional quantum materials and topological materials				
Knowledge required	o knowledge in condensed matter physics and materials science(Doctoral degree)				
Competencies required	o Materials synthesis and single crystal growth techniques for quantum materials				
Attitude required	<ul style="list-style-type: none"> o Communication through cooperation o rational thinking and action for solving problems o Creative work attitude for research in various fields of physics 				
Basic Job Skills	o Communication Skills, Numerical Skills, Problem-Solving Skills, Interpersonal Skills, Information Literacy, Organizational Understanding, Professional Ethics				
Qualification	<ul style="list-style-type: none"> 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(June 1, 2025)) o Preference : Expertise in synthesis and single crystal growth of quantum materials 				
Screening	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

Workplace	Center for Artificial Low Dimensional Electronic Systems (POHANG, POSTECH)	Job category (level)	Postdoctoral research associate	Area of hiring	Research
Work duties	Investigation of electronic properties of low dimensional materials with scanning tunneling microscopy				
Main business of IBS	<ul style="list-style-type: none"> 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. – Basic science research – Interdisciplinary basic science research in science and technology – Convergence between basic science and humanities, social science and culture and arts – Policy research for setting the direction of basic science research – Programs for establishing and utilizing research facilities and equipment – Management, transfer, utilization and commercialization of research outcomes 				
Research area of the Center	o Research on novel electronic, magnetic, and topological properties in low-dimensional quantum systems controlled at the atomic level				
Duties and responsibilities	o Research on electronic properties of low-dimensional quantum materials using STM				
Knowledge required	o knowledge in condensed matter physics and materials science(Doctoral degree)				
Competencies required	o Skills in STM operation and ultrahigh vacuum systems				
Attitude required	<ul style="list-style-type: none"> o Communication through cooperation o rational thinking and action for solving problems o Creative work attitude for research in various fields of physics 				
Basic Job Skills	o Communication Skills, Numerical Skills, Problem-Solving Skills, Interpersonal Skills, Information Literacy, Organizational Understanding, Professional Ethics				
Qualification	<ul style="list-style-type: none"> 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(June 1, 2025)) o Preference : Expertise in scanning tunneling microscopy 				
Screening	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.