

Job Description ①

Workplace	Center for quantum materials at extreme conditions (POHANG, POSTECH)	Job category (level)	Postdoctoral research associate	Area of hiring	Research
Work duties	- o Synthesis of topological quantum materials under extreme conditions - o Transport/spectroscopic measurements of quantum materials under extreme conditions - o Theoretical design of quantum materials under extreme conditions - o Quantum device measurements under extreme conditions				
Main business of IBS	- 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 exotic quantum properties and states in topological quantum materials arising from quantum geometry and many-body interactions under multiple extreme conditions				
Duties and responsibilities	o Research on the synthesis and physical property measurements of topological quantum materials under extreme conditions				
Knowledge required	- o Demonstrated research experience in topological quantum materials - o Hands-on experience in experiments under extreme conditions, including high magnetic fields, high pressure, and ultralow temperatures - o Strong physical understanding of electron behavior arising from quantum geometry and many-body effects - o Experience in the single-crystal growth and structural characterization of quantum materials				
Competencies required	o Academic Writing Skills, Problem-Solving Skills, Effective Communication Skills, Proficiency in English for International Collaboration:				
Attitude required	- 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	o Required Qualifications: Ph.D. degree in the related field(obtained within recent 5 years or to be obtained within 3 months from the expected start date(September 1, 2026))				
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 quantum materials at extreme conditions (POHANG, POSTECH)	Job category (level)	Research staff/Senior Researcher	Area of hiring	Research
Work duties	- o Synthesis of topological quantum materials under extreme conditions - o Transport/spectroscopic measurements of quantum materials under extreme conditions - o Theoretical design of quantum materials under extreme conditions - o Quantum device measurements under extreme conditions				
Main business of IBS	- 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				
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Basic Job Skills	o Communication Skills, Numerical Skills, Problem-Solving Skills, Interpersonal Skills, Information Literacy, Organizational Understanding, Professional Ethics				
Qualification	o Required Qualifications: Ph.D. degree in the related field(to be obtained before the expected start date(September 1, 2026))				
Screening	o Stage 1: Document screening → Stage 2: Interview				

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