

ScholarWorks @UNIST

UNIST Institutional Repository

CONTENTS

- ScholarWorks@UNIST?
- Open Access(OA) & ScholarWorks@UNIST
- How to make
- How to Use
- Statistics & Notice

○ ScholarWorks@UNIST?



ScholarWorks@UNIST is an Institutional Repository of UNIST.



ScholarWorks@UNIST collects, makes available, and preserves the scholarly output created by the UNIST communities.



ScholarWorks@UNIST not only provides barrier-free access to users worldwide, it also brings advantages to the institution and the contributing researchers.

USER

- Free access to high-quality collections
- Reduce the costs of taking charge of academic information

UNIST

- Opens up the outputs of the university to the world
- Author citations from repository may affect university rankings

RESEARCHER

- Broader dissemination & increased use
- Increase the citation times of papers
- Stability & long-term preservation

○ ScholarWorks@UNIST?

2013. 7

Selected as an 'Open Access Korea(OAK) Repository' business



2016, 2020

Improved the website



2014. 3

ScholarWorks@UNIST Open

2023. 4

Selected as an 'Open Access Korea(OAK) Repository' improvement business



2024. 3

Redesigned ScholarWorks@UNIST

○ Open Access(OA) & ScholarWorks@UNIST

Open Access(OA)

- Movement that promotes free availability and unrestricted use of research and scholarship
- Free of charge to the reader, no price & permission barriers

ScholarWorks@UNIST

- Digital collections of the outputs created within a university or research institution
- It aims to increase the accessibility and visibility of UNIST researchers and their research outputs

Korea(51 Repositories)

- KAIST: KOASAS, 2007
- SNU: S-Space, 2009
- **UNIST: ScholarWorks@UNIST, 2013**
- Postech: OASIS, 2015

Worlds(5,700 Repositories)

- Currently over 5,700 repositories around the world
(From Directory of Open Access Repositories (OpenDOAR), '24,3,)
- US(818) > Japan(655) > Germany(303) ... > Korea, Republic of (51)



○ How to make



Collecting

UNIST myARTICLEs

(Research Information Management System)



- A service for automatic data collection of faculty's journal papers indexed in Web of Science and Scopus
- Provides bibliography data of each article, journal impact factors and subject category rankings



Archive

ScholarWorks@UNIST



- Every verified research papers in myARTICLEs are systematically linked to ScholarWorks
- Including permanent URL, DOI, Citation information
- Licensed full-text are available to use



Providing



- Contents of ScholarWorks are indexed by web search engine such as Google, Google Scholar
- Based on international standards and protocols for data sharing

○ How to Use: Main Page

Browse items by
Communities,
Researchers, Titles,
Issue Date

Simple &
Advanced Search

UNIST Research news
linked to research news article
from UNIST News Center and
relevant researcher page
in ScholarWorks

Recent Additions

Researcher Page

Statistics &
Top downloads
Items

The screenshot shows the ScholarWorks@UNIST main page. At the top, there is a navigation bar with 'Communities', 'Researchers & Labs', 'Titles', and 'Issue Date' buttons. A search bar is located below the navigation. The main content area is divided into several sections: 'UNIST Research News' featuring a 'nature energy' article, 'Recent Additions' listing recent publications, 'Featured Researcher' for Shin, Tae Joo, and 'Top downloads' and 'Research Performance' statistics. A 'KeywordCloud' is also present at the bottom right.

Category	Percentage	Count
Article	47%	25,877건
Conference	41%	22,394건
Patent	6%	3,594건
ETC	4%	2,567건

○ How to Use: Browse by Communities and Collections

Community & Collections

- Department of Biological Sciences
- Department of Biomedical Engineering
- Department of Chemistry
- Department of Civil, Urban, Earth, and Environmental Engineering**
- Department of Computer Science and Engineering

Department of Civil, Urban, Earth, and Environmental Engineering

In: Department of Civil, Urban, Earth, and Environmental Engineering Search: Search Go

Browse: Titles Authors Keyword Date

—
Growing demand of energy, water, food, and housing driven by the exploding world population and urbanization has caused serious environmental issues including global climate change and various kinds of disaster. Sustainability is becoming a top requirement for adopting any newly developed technologies, which needs to be in a way to minimize adverse impacts on the natural environment and at the same time keep the mankind ever more prosperous.

“A better environment, a better life” is the motto designed to develop convergence technologies for UNIST, a leading research-oriented university, with cutting issues arising from them.

The School of UEE provides three important interdisciplinary programs: Disaster Management Engineering(DME) for the students.

Our discipline is based on the conventional engineering and is to integrate and crystallize them.

Steve Jobs, the former Apple CEO, said “You’ve got to be looking forward to seeing your active participation”.

Website: <https://uee.unist.ac.kr>

—

Department of Civil, Urban, Earth, and Environmental Engineering

- UEE_Conference Papers
- UEE_Journal Papers
- UEE_Patents
- UEE_Theses_Master
- UEE_Theses_Ph.D.

Recent Submissions

- Environmental Monitoring and Forecasting Using Advanced Remote Sensing Approaches

Browse by Communities & Collections

- Communities
- Collections:
 - Conference Papers
 - Journal papers
 - Patents
 - Theses

○ How to Use: Browse by Communities and Collections

Community & Collections

- Department of Biological Sciences
Researchers in this Community →
- Department of Biomedical Engineering
Researchers in this Community →
- Department of Chemistry
Researchers in this Community →
- Department of Civil, Urban, Earth, and Environmental Engineering
Researchers in this Community →
- Department of Computer Science and Engineering
Researchers in this Community →

You can check the researcher list in this community

Department Name

Department of Biological S...	Department of Biomedical ...	Department of Chemistry
Department of Civil, Urban, ...	Department of Computer S...	Department of Design / Gra...
Department of Electrical En...	Department of Industrial E...	Department of Materials Sc...
Department of Mathematic...	Department of Mechanical ...	Department of Nuclear Eng...
Department of Physics	Graduate School of Artificia...	Graduate School of Carbon ...
Graduate School of Health ...	Graduate School of Semico...	Graduate School of Techno...
School of Business Adminis...	School of Energy and Chem...	School of Liberal Arts
Others		

Showing results 1 to 12 of 19

권영남 Kwon, Young-Nam 지구환경도시건설공학과	김건 Kim, Gun 지구환경도시건설공학과
김영 Kim, Myeong 지구환경도시건설공학과	김병민 Kim, Byungmin 지구환경도시건설공학과
김정섭 Kim, Jeongseob 지구환경도시건설공학과	박상서 Park, Sang Seo 지구환경도시건설공학과
배효관 Bae, Hyokwan 지구환경도시건설공학과	신명수 Shin, Myoungsu 지구환경도시건설공학과

Researchers in this Community

○ How to Use: Browse by Researchers

Communities | **Researchers & Labs** | Titles | Issue Date

Researcher | Lab

Search: _____

All | A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | Q | R | S | T | U | V | W | X | Y | Z

가 나 다 라 마 바 사 아 자 차 카 타 파 하

Department Name

Department of Biological S...	Department of Chemistry
Department of Civil, Urban, Earth, and Environ...	Department of Computer Science and Engineering
Department of Electrical Engineering	Department of Industrial Engineering
Department of Mathematical Sciences	Department of Mechanical Engineering
Department of Physics	Department of Nuclear Engineering
Graduate School of Health Science and Technology	Graduate School of Artificial Intelligence
Graduate School of Semiconductor Materials an...	Department of Materials Science and Engineering
Graduate School of Technology and Innovation ...	Department of Design / Graduate School of C...
School of Business Administration	Graduate School of Carbon Neutrality
School of Energy and Chemical Engineering	Graduate School of Technology and Innovation ...
School of Liberal Arts	Others

Showing results 13 to 23 of 23

이재윤 Lee, Jaiyong 전기전자공학과 Department of Electrical Engine...	이종원 Lee, Jongwon 전기전자공학과 Department of Electrical Engine...
이준희 Lee, Junghwi 전기전자공학과 Department of Electrical Engine...	이훈 Lee, Hoon 전기전자공학과 Department of Electrical Engine...
이종은 Lee, Jongeun 전기전자공학과 Department of Electrical Engine...	전정환 Jeon, Jeong hwan 전기전자공학과 Department of Electrical Engine...

Showing results 13 to 23 of 23

윤희인 Yoon, Heein 전기전자공학과 Department of Electrical Engine...	이규호 Lee, Kyuho Jason 전기전자공학과 Department of Electrical Engine...	이재윤 Lee, Jaiyong 전기전자공학과 Department of Electrical Engine...	이종원 Lee, Jongwon 전기전자공학과 Department of Electrical Engine...
이종은 Lee, Jongeun 전기전자공학과 Department of Electrical Engine...	이준희 Lee, Junghwi 전기전자공학과 Department of Electrical Engine...	이훈 Lee, Hoon 전기전자공학과 Department of Electrical Engine...	전정환 Jeon, Jeong hwan 전기전자공학과 Department of Electrical Engine...
정일석 Chung, Il-Sug 전기전자공학과 Department of Electrical Engine...	정지훈 Jung, Jee-Hoon 전기전자공학과 Department of Electrical Engine...	최은미 Choi, EunMi 전기전자공학과 Department of Electrical Engine...	

Researchers in this Community

이종은
Lee, Jongeun
전기전자공학과 (Department of Electrical Engineering)

Intelligent Computing and Codesign Lab. Website

Research Interests Deep learning processor architecture;Quantization;Energy efficiency;Reconfigurable architecture;Compilers

Lab Description Our research area is co-design of hardware and software for optimizing cost, performance, power, and energy of emerging computer systems. Examples of such systems include AI (Artificial Intelligence) processors and Systems-on-Chips (SoCs) for media and signal processing applications.

Research Page

Article | Preceding | Patent

Partial Sum Quantization for Reducing ADC Size in ReRAM-based Neural Network Accelerators
Azamat, Azat, Asim, Faiz, Kim, Ilritae, Lee, Jongeun
Article • Issue Date: 2023-12 • View: 2

Training-Free Stuck-at Fault Mitigation for ReRAM-based Deep Learning Accelerators
Qari, Chenghao, Fouda, Mohammed E., Lee, Sugil, Jung, Giju, Lee, Jongeun, Eltawi, Ahmad, Kundah, Fadi
Article • Issue Date: 2023-07 • View: 0

Intel Code Integrity Protection at the Physical Address Level on RISC-V
Ha, Seon, Yu, Minsang, Moon, Hyungon, Lee, Jongeun
Article • Issue Date: 2023-06 • View: 0

○ How to Use: Browse by Labs

Communities Researchers & Labs Titles Issue Date

Researcher Lab

Search

All A B C D E F G H I J K L M N O P Q R S T U V W X Y Z
가 나 다 라 마 바 사 아 자 차 카 타 파 하

Department Name

Department of Biological Sciences	Department of Biomedical Engineering	Department of Chemistry
Department of Civil, Urban, Earth, and Environme...	Department of Computer Science and Engineering	Department of Design / Graduate School of Creati...
Department of Electrical Engineering	Department of Industrial Engineering	Department of Nuclear Engineering
Department of Mathematical Sciences	Department of Mechanical Engineering	Department of Physics
Department of Physics	Graduate School of Artificial Intelligence	Graduate School of Carbon Neutrality
Graduate School of Health Science and Technology	Graduate School of Semiconductor Materials and ...	Graduate School of Technology and Innovation M...
School of Energy and Chemical Engineering	School of Liberal Arts	

Click the Community name

Labs in this Community

Showing results 1 to 5 of 5

Advanced Clean Energy Lab. 청정에너지 연구실 ■ 서용원(Seo, Yongwon)	Air Quality Impact Assessment Research Lab. 대기환경영향 연구실 ■ 송창근(Song, Chang-Keun)	Computational Advanced Nanomechanics Lab. 전산나노역학 연구실 ■ 김성엽(Kim, Sung Youb)
Enzyme and Protein Engineering Lab. 효소단백질공학 연구실 ■ 김용환(Kim, Yong Hwan)	Next Generation Energy Lab. 차세대 에너지 연구실 ■ 김진영(Kim, Jin Young)	

Click the Lab name

김성엽 Kim, Sung Youb
단소중립대학원

Computational Advanced Nanomechanics Lab. Website

Research Interests: Nanomechanics;CAE;Fracture Mechanics;Dislocation theory;Unusual Mechanical Behavior;나노역학;전산의용해석;나노기계역학;결함론;기타역학

Lab Description: CAN is investigating... specially emphasizing on the mechanics or mechanics-mediate characteristics of them. CAN is studying the validity and limitation of continuum (solid) mechanics theories in the applications for nanoscale materials. In addition, CAN is working on traditional CAE using FEM for various applications such as batteries, electronic skin, auxetic materials, acoustic topological insulators and so on.

Click the 'Website'

CANLab

Computational nanomechanics: Nanomechanics is literally the mechanics of nanoscale materials. The mechanics of nanomaterials may differ from that of their bulk counterparts due to the confinement of electrons originated from their extremely small sizes. more...

Computing methods in nanoscale: There are many good tools to mine precious gems in the nano worlds. Of course they are not always good, and they have advantages and disadvantages based on what we want to know. Here we list the representative computational methods. more...

Nanomaterials: All materials are able to be nanomaterials as long as their sizes become nanoscale. Many materials reveal exceptional or extraordinary characteristics compared to their bulk counterparts. When their sizes reaches to nanometer scale more...

○ How to Use: Researcher Page

Communities | Researchers & Labs | Titles | Issue Date

이종은
Lee, Jongeun
전기전자공학과 (Department of Electrical Engineering)

Intelligent Computing and Codesign Lab. Website

Research Interests Deep learning processor architecture;Quantization;Energy efficiency;Reconfigurable architecture;Compilers

Lab Description Our research area is co-design of hardware and software for optimizing cost, performance, power, and energy of emerging computer systems. Examples of such systems include AI (Artificial Intelligence) processors and Systems-on-Chips (SoCs) for media and signal processing applications.

← Previous

Article | Proceeding | Patent

Partial Sum Quantization for Reducing ADC Size in ReRAM-based Neural Network Accelerators
Azamat, Azat, Asim, Faal, Kim, Jintae, Lee, Jongeun
Article • Issue Date 2023-12 • View 2

Training-Free Stuck-at Fault Mitigation for ReRAM-based Deep Learning Accelerators
Quan, Chenghao, Fouda, Mohammed E., Lee, Sugil, Jung, Giju, Lee, Jongeun, Eltawil, Ahmed, Kurdahi, Fadi
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Kernel Code Integrity Protection at the Physical Address Level on RISC-V
Ha, Seon, Yu, Minsang, Moon, Hyungon, Lee, Jongeun
Article • Issue Date 2023-06 • View 0

Offline Training-based Mitigation of IR Drop for ReRAM-based Deep Neural Network Accelerators
Lee, Sugil, Fouda, Mohammed E., Lee, Jongeun, Eltawil, Ahmed, Kurdahi, Fadi
Article • Issue Date 2023-02 • View 0

MLogNet: A Logarithmic Quantization-Based Accelerator for Depthwise Separable Convolution
Choi, Jooyeon, Sim, Hyeonuk, Oh, Sangyun, Lee, Sugil, Lee, Jongeun
Article • Issue Date 2022-12 • View 0

Researcher Page
Researcher Profile from myARTICLES

Picture, Research Interests, Lab,
E-mail, Website, Researcher Profile Websites

Researcher Profile Websites

- Researcher ID (Web of Science by Thomson)
- Author ID (SCOPUS by Elsevier)
- ResearchGate ID
- Google Citation ID (Google Scholar)
- ORCID

Publication List
(Journal Articles, Proceeding, Patents)

○ How to Use: Browsing by Title & Issue Date

Browsing by Title :

Jump to a point in the index:

All A B C D E F G H I J K L M N O P Q R S T U V W X Y Z
가 나 다 라 마 바 사 아 자 차 카 타 파 하

Sort by: title In order: Ascending

Results/Page 20 Etal: 10

Sort by Title /ascending or descending

Showing results 1 to 20 of 54430

- 0.18- μ m CMOS equalization techniques for 10-Gb/s fiber optical communication links**
Maeng, M, Bien, Franklin, Hur, Y, Kim, H, Chandramouli, S, Gebara, E, Laskar, J.
Article • Issue Date 2005-11 • View 6
- 1 Dimensional Fe₂O₃ Photoanode for Photoelectrochemical Water Splitting**
전위찬, Lee, Jae Sung, 김은선, 김재영, 홍석준
Conference Paper • Issue Date 2010-06-04 • View 5
- 1 ton/day 폐수지 처리장치의 비상정비에 따른 작업자의 선량 평가**
변재훈, 최무년, 김희영
Conference Paper • Issue Date 2020-11-26 • View 0
- 1,1'-Bis(N-benzimidazolylidene)ferrocene: synthesis and study of a novel ditopic ligand and its transition metal complexes**
Varnado, C. Daniel, Jr., Lynch, Vincent M., Bielawski, Christopher W.
Article • Issue Date 2009 • View 0
- 1,4-Di(3-alkoxy-2-thienyl)-2,5-difluorophenylene: A Building Block Enabling High-Performance Polymer Semiconductors with Increased Open-Circuit Voltages**
Chen, Jianhua, Yan, Zhenglong, Tang, Linjing, Uddin, Mohammad Afsar, Yu, Jianwei, Zhou, Xin, Yang, Kun, Tang, Yumin, Shin, Tae Joo, Woo, Han Young, et al.
Article • Issue Date 2018-07 • View 0

Browsing by Issue Date :

Jump to a point in the index: (Choose year) (Choose month)

Or type in a year:

Sort by: Issue date In order: Descending

Results/Page 20 Etal: 10

Sort by Issue Date /ascending or descending

Showing results 1 to 20 of 54430

- Recent Advances in Patterning Strategies for Full-Color Perovskite Light-Emitting Diodes**
Lee, Gwang Heon, Kim, Kiwook, Kim, Yunho, Yang, Jiwoong, Choi, Moon Kee
Article • Issue Date 2024-12 • View 4
- Upconversion Material-Plasmonic Metal-Semiconductor Ternary Heteronanostructures for Wide-Range Solar-to-Chemical Energy Conversion**
Jung, Hayoon, Cho, Youngsang, Kang, Sunghye, Nho, Hak-Won, Kim, Yonghyeon, Kwon, Oh Hoon, Han, Sang Woo
Article • Issue Date 2024-12 • View 0
- FusionFlow: Accelerating Data Preprocessing for Machine Learning with CPU-GPU Cooperation**
Kim, Taeyoon, Park, Chanho, Mukimbekov, Mansur, Hong, Heelim, Kim, Minseok, Jin, Ze, Kim, Changdae, Shin, Ji-Yong, Jeon, Myeongjae
Conference Paper • Issue Date 2024-08-25 • View 1
- Generalized Average Modeling 기법을 이용한 단상 하이브리드 변압기의 AC/DC 컨버터 소신호 모델**
Jung, Gwon-Gyo, Kim, Ho-Sung, Jung, Jee-Hoon
Article • Issue Date 2024-06 • View 0
- XB-MAML: Learning Expandable Basis Parameters for Effective Meta-Learning with Wide Task Coverage**
Lee, Jae-Jun, Yoon, Sung Whan
Conference Paper • Issue Date 2024-05-02 • View 0

○ How to Use: Article Page

Citation Information

Times cited in Web of Science & Scopus

(※'24. 3. Not yet linked)

Article Page

Bibliography data of each article from myARTICLES

Title, Author, Keywords, Issue Date, Publisher, Abstract, DOI, ISSN, etc.

Detailed Information ← Previous

Cited 0 time in **WEB OF SCIENCE** | Cited 0 time in **Scopus** | Metadata Downloads | RIS (EndNote) | Excel | XML

Analysis of Differences in Electrochemical Performance Between Coin and Pouch Cells for Lithium-Ion Battery Applications

- Author(s) [Son, Yeonguk, Cha, Hyungyeon, Lee, Taeyong, Kim, Yujin, Boies, Adam, Cho, Jaephil, De Volder, Michael](#)
- Issued Date 2023-03
- DOI [10.1002/eem2.12615](https://doi.org/10.1002/eem2.12615)
- URI <https://scholarworks.unist.ac.kr/handle/201301/64264>
- Citation ENERGY & ENVIRONMENTAL MATERIALS, pp.e12615
- Abstract Small coin cell batteries are predominantly used for testing lithium-ion batteries (LIBs) in academia because they require small amounts of material and are easy to assemble. However, insufficient attention is given to difference in cell performance that arises from the differences in format between coin cells used by academic researchers and pouch or cylindrical cells which are used in industry. In this article, we compare coin cells and pouch cells of different size with exactly the same electrode materials, electrolyte, and electrochemical conditions. We show the battery impedance changes substantially depending on the cell format using techniques including Electrochemical Impedance Spectroscopy (EIS) and Galvanostatic Intermittent Titration Technique (GITT). Using full cell NCA-graphite LIBs, we demonstrate that this difference in impedance has important knock-on effects on the battery rate performance due to ohmic polarization and the battery life time due to Li metal plating on the anode. We hope this work will help researchers getting a better idea of how small coin cell formats impact the cell performance and help predicting improvements that can be achieved by implementing larger cell formats.
- Publisher WILEY
- ISSN 2575-0356
- Keyword (Author) [coin cell](#), [full cell](#), [lithium-ion batteries](#), [pouch cell](#)
- Keyword [GRAPHITE](#), [CHALLENGES](#), [ELECTRODES](#), [PARAMETERS](#), [ANODES](#)

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Energy Environ Materials _ 2023 _ Son _ Analysis of Differences in Electrochemical Performance Bet.pdf

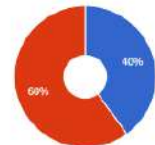
[SFX Link](#)

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Related Researcher

 **Cho, Jaephil**
Nano Energy Storage Material Lab.
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Views & Downloads

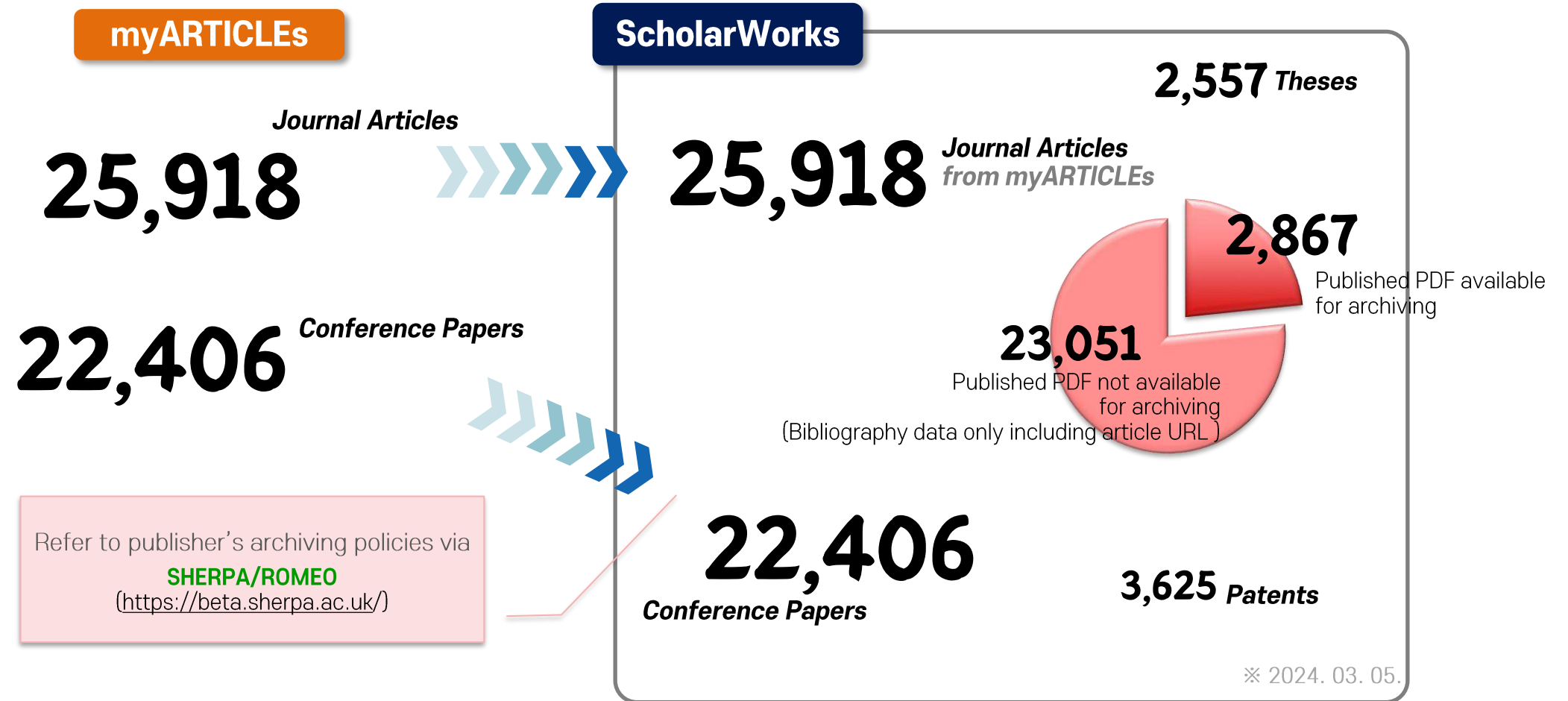


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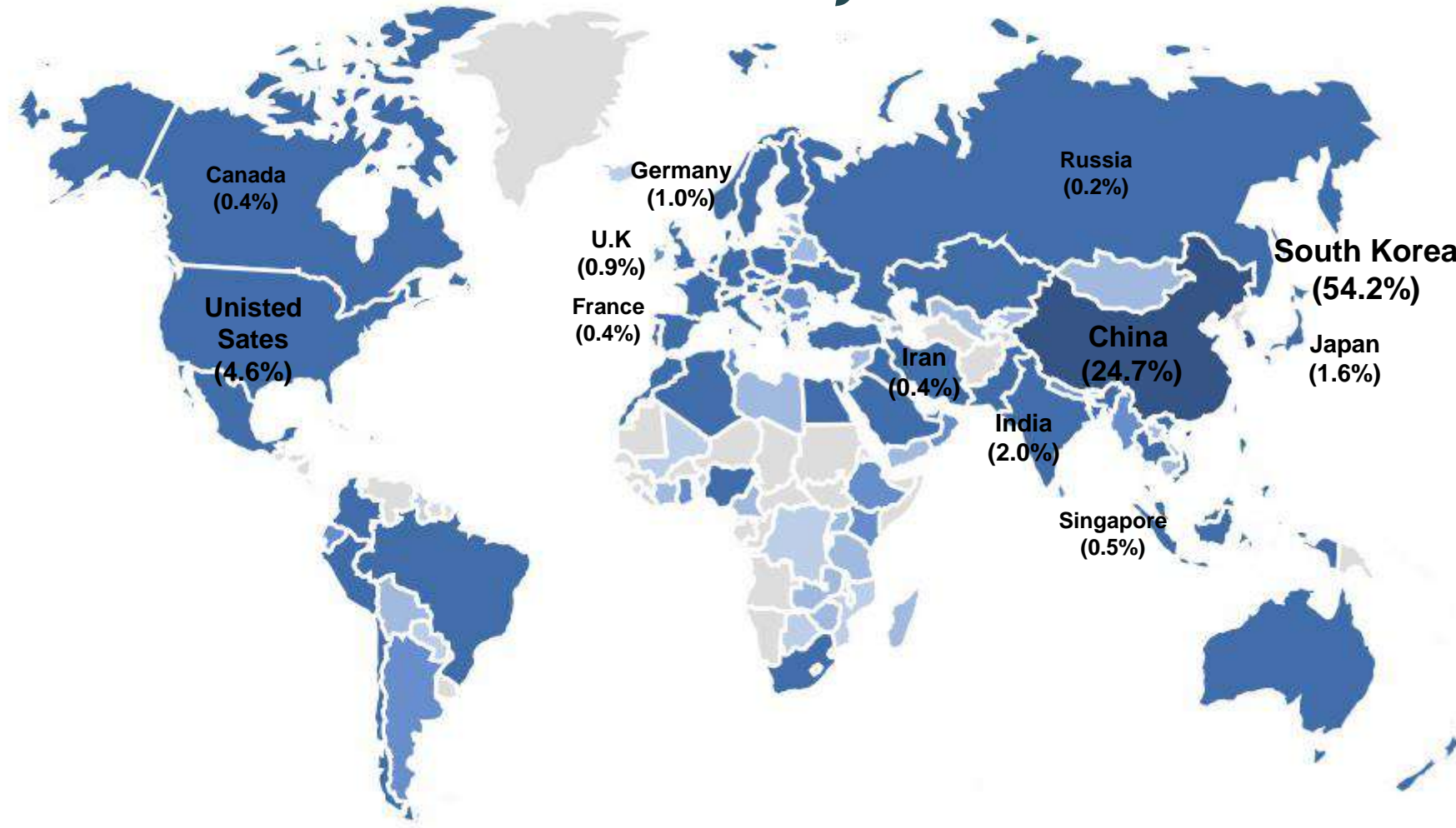
Related Researcher of this article

○ Statistics: 2014 ~ current



○ Statistics: 2023

54,720 Visitors from all around the world in 2023!



1	South Korea	
2	China	
3	United States	
4	India	
5	Japan	
6	Germany	
7	United Kingdom	
8	Taiwan	
9	Philippines	
10	Canada	

Notice! Submission of pre/post-print version articles

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01

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<https://beta.sherpa.ac.uk/> → Search by Journal Title, ISSN , Publisher, etc.

SHERPA/RoMEO

(Open Archiving Project by JISC)

- SHERPA/RoMEO is database of publisher's policies on copyright and self-archiving.
- It provides summaries of publisher copyright and open access archiving policies on a journal-by-journal basis.
- As open access policies have become more complicated, the Romeo colours is no longer service. (2020.6)



02

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- Send pre-print or post print version articles (※ Must check the publisher policy)



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