

# ScholarWorks @UNIST

*UNIST Institutional Repository*



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- 통계 / 출판 전 논문 제출 안내

# ○ ScholarWorks@UNIST?



ScholarWorks@UNIST는 UNIST 소속 연구자들의 연구 결과물을 온라인 상에 저장하고 이를 누구나 자유롭게 이용할 수 있도록 하는 Institutional Repository 시스템입니다.



ScholarWorks@UNIST는 UNIST 소속 연구자들이 발간한 학술지논문, 학술대회 논문, 학위논문 등 연구성과물의 서지데이터, 원문, 연구자정보 등을 수록하고 있습니다.

※ 원문의 경우 각 출판사에서 지정한 원문공개 저작권 정책 준수



ScholarWorks@UNIST는 이용자, 기관, 연구자 모두에게 이익이 되는 무료 온라인 아카이브 시스템입니다.

## USER

- 양질의 학술정보에 대한 접근 및 활용 증대
- 무료 원문서비스 활용으로 자료이용 비용 절감

## UNIST

- 우수 연구성과 공유를 통한 기관 홍보 효과
- 연구결과물의 보존을 통한 지적재산권 보존

## RESEARCHER

- 연구 성과 확산 및 연구영향력 증대
- 국내외 협업 및 교류 도구로 활용 가능

# ○ ScholarWorks@UNIST?



# ○ Open Access(OA)와 ScholarWorks@UNIST

## Open Access(OA)

- “학술정보에 대한 자유로운 접근과 이용”을 위해 누구나 어디서든지 각종 연구 성과물들을 출판과 동시에 자유롭게 공유 할 수 있도록 하는 국제적 운동
- 인터넷 상에서 무료로 논문의 전문(full-text)을 읽고, 다운로드하고, 복제, 배포, 인쇄, 검색, 링크할 수 있는 상태 (Budapest Open Access Initiative, 2002)

## ScholarWorks@UNIST

- 오픈엑세스를 실현하는 주요 전략 중 하나로 오픈엑세스 기반 디지털 학술정보를 수집·관리·배포·보존하는 개방형 디지털 저장소
- UNIST의 우수한 연구자와 연구성과에 대한 접근성과 가시성을 높인 대외적 홍보 사이트

## 국내현황

- KAIST: KOASAS, 2007
- 서울대학교: S-Space, 2009
- UNIST: SholarWorks@UNIST, 2013
- Postech: OASIS, 2015

## 전세계 현황

- 전 세계적으로 약 5,700여 개의 리포지터리 구축 (From Directory of Open Access Repositories (OpenDOAR), '24,3, 기준)
- US(818) > Japan(655) > Germany(303) ··· > Korea, Republic of (51)



# ○ 구축과정



## Collecting

UNIST myARTICLEs  
(UNIST 교원연구업적관리시스템)



- 신뢰할 수 있는 외부정보원인 Web of Science, Scopus 데이터 반입 → 검증 및 정비과정을 거쳐 서지데이터 및 원문 축적 (학술지논문/학술대회논문)
- 연구자 개인 프로필 축적
  - 사진, 관심연구영역, 홈페이지 주소, 이메일, 연구실 등



## Archive

ScholarWorks@UNIST



- myARTICLEs → ScholarWorks로 **연구업적(논문), 연구자 프로필** 연동
- 논문의 서지데이터 및 출판사의 저작권정책상 원문공개가 허용 된 논문은 원문까지 연계
- 학술지논문, 학술대회논문, 특히, 학위논문 데이터 구축



## Providing



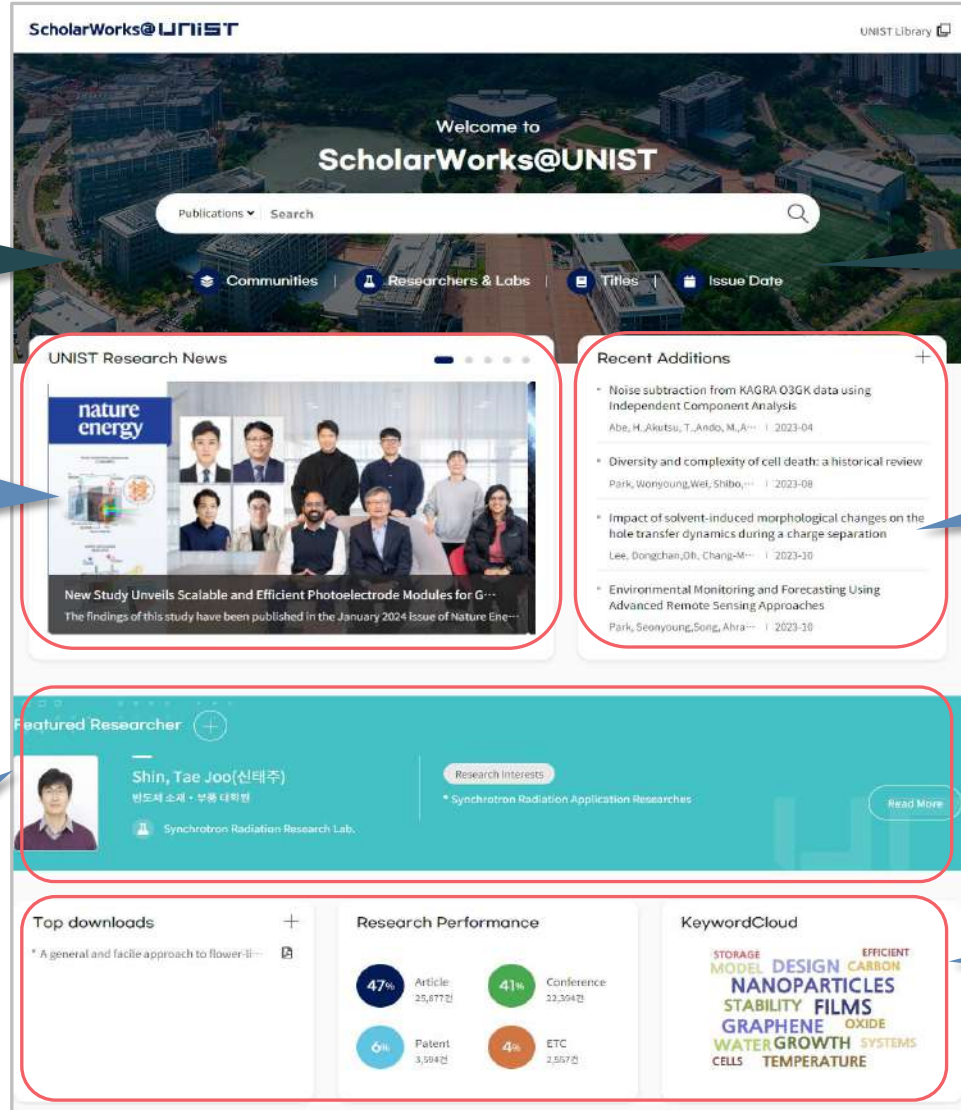
- ScholarWorks에 수록된 연구 성과물은 Google, Google Scholar등 검색 포털 사이트에 색인됨
- 2023년도 국립중앙도서관의 「OAK 리포지터리 개선 보급」 대상에 선정되어 개선사업 진행 (인터페이스 및 시스템 기능 향상)

# ○ 이용방법: Main Page

**Browse items**  
커뮤니티, 연구자,  
논문 타이틀/발행연도 별  
브라우징 가능

**UNIST Research news**  
연구관련 뉴스기사 연동 및  
(from UNIST News Center)  
관련 연구자 페이지 링크 제공

**Researcher Page**  
개별 연구자 페이지  
(전임교원)



**Simple & Advanced Search**(돋보기 클릭)

**Recent Additions**  
최근 반입된 논문 리스트

**Statistics & Top downloads Items**

# ○ 이용방법: Browse by Communities and Collections

The image shows a screenshot of the UNIST LIBRARY interface. On the left, a 'Community & Collections' sidebar lists various departments: Department of Biological Sciences, Department of Biomedical Engineering, Department of Chemistry, Department of Civil, Urban, Earth, and Environmental Engineering (highlighted with a red oval), and Department of Computer Science and Engineering. A blue callout box over the Department of Chemistry says '학부 명 클릭 시 해당 학부 상세페이지로 이동'. A red arrow points from the highlighted department to a larger, detailed view of its page on the right. This detailed view includes a search bar, a 'Browse' tab, and a list of collections: UEE\_Conference Papers, UEE\_Journal Papers, UEE\_Patents, UEE\_Theses\_Master, and UEE\_Theses\_Ph.D. A dark blue callout box on the right contains the title 'Browse by Communities & Collections' and a list of collection types: Communities (3 departments, 13 departments, 5 universities) and Collections (Conference Papers, Journal papers, Patents, Theses).

Community & Collections

- Department of Biological Sciences
- Department of Biomedical Engineering
- Department of Chemistry
- 학부 명 클릭 시 해당 학부 상세페이지로 이동
- 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

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: 3개 학부 & 13개 학과 & 5개 대학원
- Collections:
  - Conference Papers
  - Journal papers
  - Patents
  - Theses



# ○ 이용방법: Browse by Communities and Collections

Community & Collections

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

해당 학부 소속 전임교원 리스트 확인 및 개별 연구자 페이지 접속 가능

Department Name

- Department of Biological Sciences
- Department of Civil, Urban, Earth, and Environmental Engineering**
- Department of Electrical Engineering
- Department of Mathematics
- Department of Physics
- Graduate School of Health Science
- School of Business Administration
- Others
- Department of Biomedical Engineering
- Department of Computer Science and Engineering
- Department of Industrial Engineering
- Department of Mechanical Engineering
- Graduate School of Artificial Intelligence
- Graduate School of Semiconductor Engineering
- School of Energy and Chemical Engineering
- Department of Chemistry
- Department of Design / Graphics
- Department of Materials Science
- Department of Nuclear Engineering
- Graduate School of Carbon Science
- Graduate School of Technology
- School of Liberal Arts

Showing results 1 to 12 of 19

- 권영남**  
Kwon, Young-Nam  
지구환경도시건설공학과
- 김건**  
Kim, Gun  
지구환경도시건설공학과
- 김영민**  
Kim, Byungmin  
지구환경도시건설공학과
- 김정섭**  
Kim, Jeongseob  
지구환경도시건설공학과
- 박상서**  
Park, Sang Seo  
지구환경도시건설공학과
- 배효관**  
Bae, Hyokwan  
지구환경도시건설공학과
- 신명수**  
Shin, Myongsu  
지구환경도시건설공학과

Researchers in this Community

# ○ 이용방법: Browse by Researchers & 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 S...  
Department of Civil, Urban, Earth, and Environm...  
**Department of Electrical Engineering**  
Department of Mathematical Sciences  
Department of Physics  
Graduate School of Health Science and Technology  
School of Business Administration  
Others

Department of Computer Science and Engineering  
Department of Industrial Engineering  
Department of Mechanical Engineering  
Graduate School of Artificial Intelligence  
Graduate School of Semiconductor Materials an...  
School of Energy and Chemical Engineering

Department of Design / Graduate School of C...  
Department of Materials Science and Engineerin...  
Department of Nuclear Engineering  
Graduate School of Carbon Neutrality  
Graduate School of Technology and Innovation ...  
School of Liberal Arts

Showing results 13 to 23 of 23

이종은 Lee, Jongeun  
전기전자공학과  
Department of Electrical Engine...

이준희 Jeon, Jeong hwan  
전기전자공학과  
Department of Electrical Engine...

이훈 Lee, Hoon  
전기전자공학과  
Department of Electrical Engine...

이종원 Lee, Jongwon  
전기전자공학과  
Department of Electrical Engine...

이재운 Lee, Jalyong  
전기전자공학과  
Department of Electrical Engine...

이준 Lee, Hoon  
전기전자공학과  
Department of Electrical Engine...

이준원 Lee, Jongwon  
전기전자공학과  
Department of Electrical Engine...

이재은 Lee, Jalyong  
전기전자공학과  
Department of Electrical Engine...

이준원 Lee, Jongwon  
전기전자공학과  
Department of Electrical Engine...

이종은 Lee, Jongeun  
전기전자공학과  
Department of Electrical Engine...

이준희 Jeon, Jeong hwan  
전기전자공학과  
Department of Electrical Engine...

이훈 Lee, Hoon  
전기전자공학과  
Department of Electrical Engine...

이종원 Lee, Jongwon  
전기전자공학과  
Department of Electrical Engine...

이재운 Lee, Jalyong  
전기전자공학과  
Department of Electrical Engine...

이준 Lee, Hoon  
전기전자공학과  
Department of Electrical Engine...

이준원 Lee, Jongwon  
전기전자공학과  
Department of Electrical Engine...

Showing results 13 to 23 of 23

이종은 Lee, Jongeun  
전기전자공학과  
Department of Electrical Engine...

이재운 Lee, Jalyong  
전기전자공학과  
Department of Electrical Engine...

이준원 Lee, Jongwon  
전기전자공학과  
Department of Electrical Engine...

이준희 Jeon, Jeong hwan  
전기전자공학과  
Department of Electrical Engine...

이훈 Lee, Hoon  
전기전자공학과  
Department of Electrical Engine...

이준원 Lee, Jongwon  
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...

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.

Article Proceeding Patent

Partial Sum Quantization for Reducing ADC Size in ReRAM-based Neural Network Accelerators  
Azam, 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, Kundaib, 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

# ○ 이용방법: Browse by Researchers & 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	<b>학부 명 클릭 시 해당 학부 소속 연구실 리스트 확인 가능</b>	
Department of Mathematical Sciences	Department of Mechanical Engineering	Department of Nuclear Engineering
Department of Physics	Graduate School of Artificial Intelligence	<b>Graduate School of Carbon Neutrality</b>
Graduate School of Health Science and Technology	Graduate School of Semiconductor Materials and ...	Graduate School of Technology and Innovation M...
School of Business Administration	School of Energy and Chemical Engineering	School of Liberal Arts
Others		

Showing results 1 to 5 of 5

<b>Advanced Clean Energy Lab.</b> 청정에너지 연구실 Seo, Yongwon	<b>Air Quality Impact Assessment Research Lab.</b> 대기환경영향 연구실 Song, Chang-Keun	<b>Computational Advanced Nanomechanics Lab.</b> 전산나노역학 연구실 <b>Kim, Sung Youb</b>
<b>Enzyme and Protein Engineering Lab.</b> 효소단백질공학 연구실 Kim, Yong Hwan	<b>Next Generation Energy Lab.</b> 차세대 에너지 연구실 Kim, Jin Young	

**연구실명 클릭 시 담당 교원 페이지로 이동**

**김성엽**  
Kim, Sung Youb  
단소중심대학원

Computational Advanced Nanomechanics Lab. | **Website**

Research Interests: Nanomechanics;CAE;Fracture Mechanics;Dislocation theory;Unusual Mechanical Behavior; 나노역학;전산나노역학;전산나노기계역학;정밀공기역학

Lab: **Websites 클릭 시 연구실사이트로 이동**

...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.

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...

# ○ 이용방법: Researcher Page

**Researcher Page**  
 myARTICLEs에서 연구자프로필 연동  
 사진, 관심연구영역, 연구실명,  
 이메일, 홈페이지주소, 연구자 프로필 웹사이트

**Researcher Profile Websites**  
 연구자 프로필 웹사이트 연계

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

**Publication List**  
 연구성과물 리스트 수록  
 (학술지논문/학술대회/특허 최신 출판일순 정렬)



# ○ 이용방법: Browsing by Title & Issue Date

Browsing by Title :

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

Update

Title 순 정렬 선택 → 정렬순서(오름차순/내림차순) 선택 가능

**0.18- $\mu$ 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, 최우년, 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) Go

Or type in a year: YYYY

Sort by: Issue date In order: Descending

Results/Page 20 Etal: 10

Update

발간일 순 정렬 선택 → 정렬순서(오름차순/내림차순) 선택 가능

**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

# ○ 이용방법: Article Page

논문 인용정보  
Web of Science & Scopus  
피인용횟수 연동  
(※'24. 3. 기준 데이터 연계 중-  
업데이트 예정)

**Article Page**  
myARTICLEs에서 서지데이터 연동  
제목, 저자, 키워드, 발행일, 권호 정보,  
출판사, 초록, DOI, ISSN 등

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](#)
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- 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.
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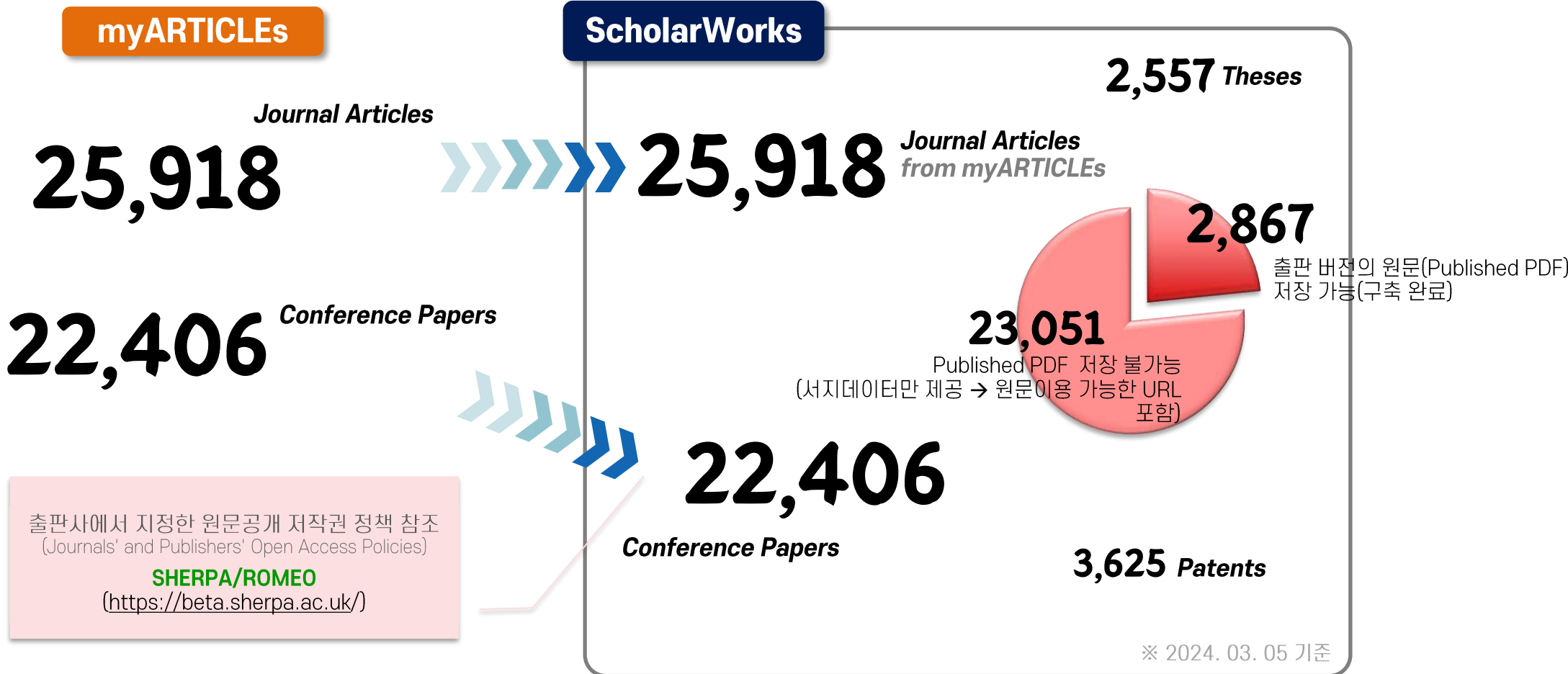
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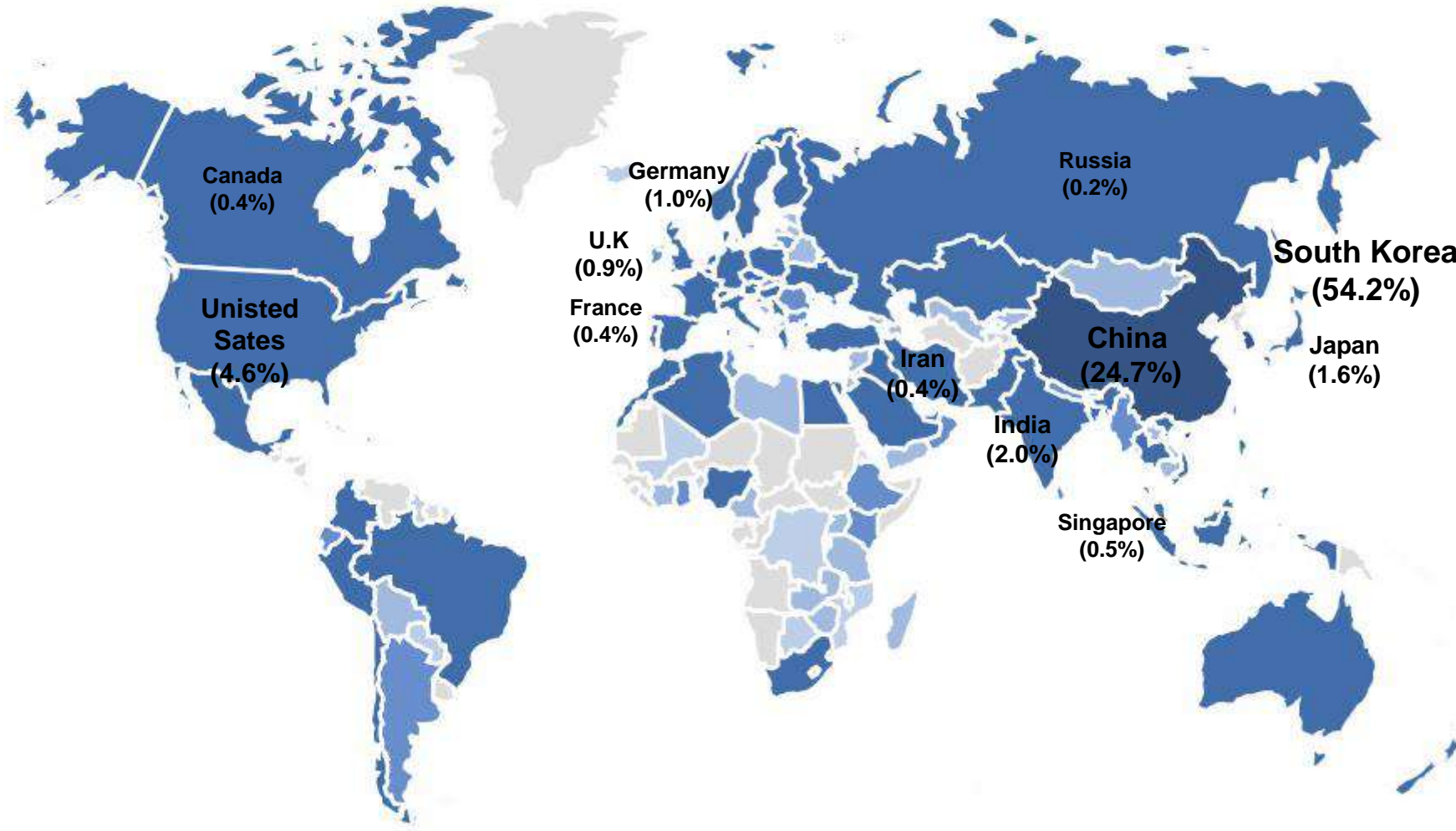


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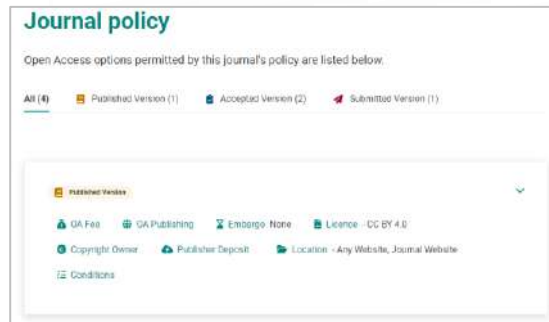
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