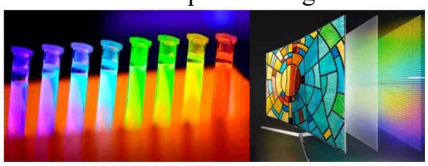
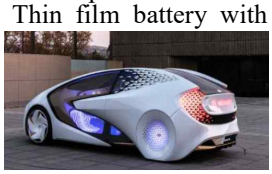
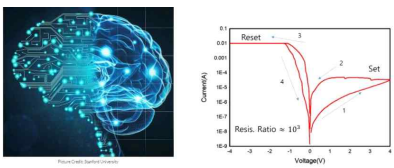
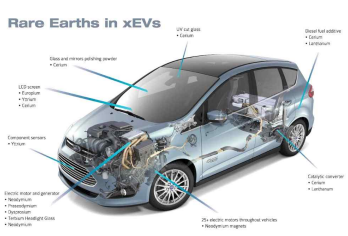
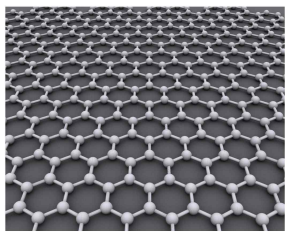
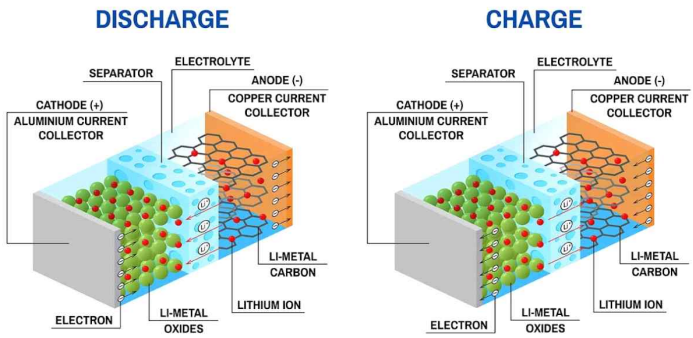
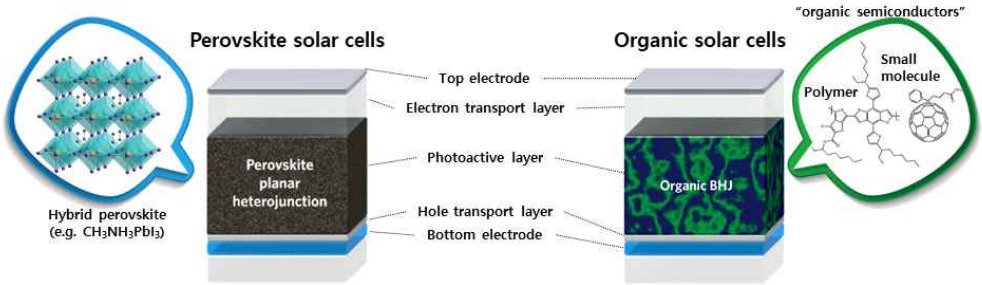
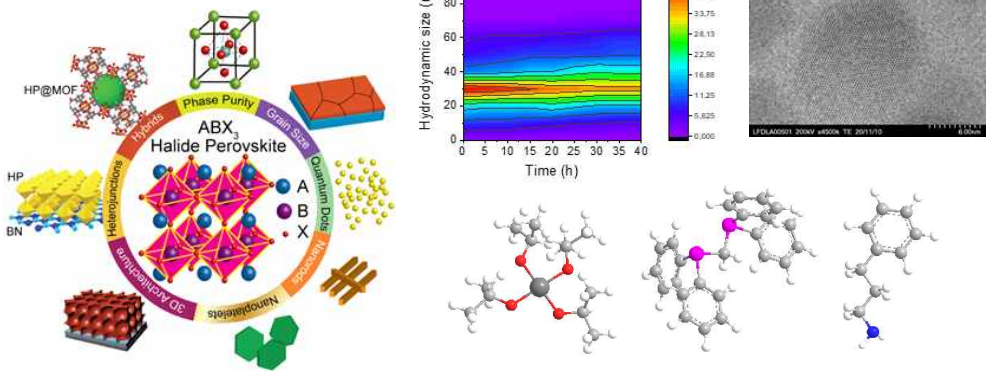
Professor	JunHo Kim	E-mail	jhk@inu.ac.kr
Laboratory	Nano Photoelectronic Device Lab (NPDL)		
Homepage	npdl.inu.ac.kr		
Recruitment	NPDL lab kindly invites the self-motivated students' appliance on the integrated MS and Ph.D. or Ph.D. programs. Lab currently consists of 1 post-doc, 1 Ph.D. student and 2 (MS+Ph.D.) students. We are aiming the familyship of group members, which has a strong and warm hierarchy. From the fundamentals to the cutting-edge application devices, lab covers the various research fields.		
Research fields	**1. Thin film solar cells with chalcogenide and metal halide perovskite materials** CIGSSe and CZTSSe thin film solar cells Metal halide perovskite solar cells. High efficiency CIGS/Perovskite tandem solar cells. Flexible thin film solar cells. Building integrated photovolatic solar cells, window solar cells  **2. Metal halide-based LED and optoelectronics with quantum dots** Application of perovskite single crystals to optoelectronics such as LED, photodetector, solar cells and quantum light source.  **3. Next generation energy storage : All-solid-state Li ion Battery** Development of all-solid-state Li ion battery with solid electrolyte. Thin film battery with garnet LLZO film.  **4. Neuromorphic devices (memristor devices)** Next-generation semiconductor materials and devices. Memristor devices.  If you want to know more information about research interests of lab, please visit http://npdl.inu.ac.kr, or http://npdl.incheon.ac.kr		
Supports	1. Tuition fee 2. Monthly salary (MS : 800,000 KRW/month, Ph.D.: 1,000,000 KRW/month) 3. Support to travel and attendance for scientific conference or meeting 4. Extra incentive for the students' performance		
REMARK	1. All students should publish at least 3 SCI papers before graduation of Ph.D. 2. Our lab has very high intensity work, and study. 3. Our lab is supported by the National Research Foundation of Korea and Incheon National University.		

<table>
<tr><td>Professor</td><td>Dorj Odkhuu</td><td>E-mail</td><td>odkhuu@inu.ac.kr</td></tr>
<tr><td>Laboratory</td><td colspan="3">Computational Materials Design (CMD)</td></tr>
<tr><td>Homepage</td><td colspan="3">https://sites.google.com/view/cmdg</td></tr>
<tr><td>Recruitment</td><td colspan="3">CMD invites the self-motivated students' appliance on graduate programs. CMD group currently consists of one postdoctoral researcher and three M.Sc.&Ph.D. integrated course students. We are aiming the familyship of group members, which has a strong and warm hierarchy. CMD focuses 4 main research fields as described below.</td></tr>
<tr><td>Research fields</td><td colspan="3">- M.Sc. program
- Ph.D. program
- M.Sc.&Ph.D. integrated program on the following research fields
1. First-principles calculations on rare-earth and rare-earth free permanent magnetic materials
 
Permanent magnetic materials have many applications such as memory devices, high speed trains, speakers and microphones
 

Today, their most crucial use is motors of an Electric Vehicle, which is composed of many Rare-Earth elements such as Neodymium, Samarium, Cerium, Lanthanum, and Yttrium.
 
Working mechanism of a Wind Turbine also requires permanent magnetic material
2. First-principles calculations on graphene and 2D materials
 
3. First-principles calculations on Li-ion battery materials
 

4. Code development
If you want to know more information about research interests of lab, please visit http://https://sites.google.com/view/cmdg</td></tr>
<tr><td>Supports</td><td colspan="3">1. Tuition fee
2. Average salary in ROK (M.Sc. 700-900,000KRW/month, Ph.D. 1,000,00-1,200,000 KRW/month)
3. Conference participant/trainee support
4. Extra incentive for the students' performance</td></tr>
<tr><td>REMARK</td><td colspan="3">1. All students should publish at least 4 SCI papers before graduation of Ph.D.
2. Our lab has very high intensity work, and study.
3. Our lab is supported by the National Research Foundation of Korea (Grant No. 2020R1F1A1067589) and Basic and Applied Scientific Research Program, US Department of Defence (GRANT13520418).</td></tr>
</table>

Professor	Jinho Lee	E-mail	jlee@inu.ac.kr
Laboratory	Hybrid Energy Device Laboratory (HEDL)		
Homepage	https://sites.google.com/view/hedl		
Recruitment	HEDL lab kindly invites the self-motivated students' appliance on the integrated Ph.D. or Ph.D. programs. Lab currently consists of one M.S and 6 undergraduate students. We are looking for enthuastic and self-motivated students. In lab life, we are aiming the familyship of group members, which has a strong and warm hierarchy. From the fundamentals to the applications, HEDL lab covers the various research fields related to the next-generation photovoltaic devices, such as organic and perovskite solar cells. We hope this will be a great opportunity for you to advance your academic career.		
Research fields	**1. Next-generation solar cells** - **organic solar cells** - **perovskite solar cells** - **Device analysis**  **2. Nanomaterial synthesis** - **perovskite nano-crystal** - **sol-gel metal-oxide** - **nano-particles**  If you want to know more information about research interests of lab, please visit http://https://sites.google.com/view/hedl		
Supports	1. Average salary in ROK (MS 600,000 KRW per a month) 2. Free accommodation for stable living 3. Extra incentive for the students' performance		
REMARK	1. All students should publish at least 1 and 3 SCI papers before graduation of MS and Ph.D., respectively. 2. Our lab recommends attending a conference at least once a year. 3. Our lab is supported by the Incheon National University and National Research Foundation of Korea.		