

세미나 초록

성명	나석인
소속	전북대 유연인쇄전자전문대학원
발표 주제	Perovskite Interface & Film-Formation Engineering for Better-Quality Perovskite Solar Cells
발표 내용	<p>Perovskite imperfection issues by the ionic nature of organic inorganic hybrid perovskite and its imperfect interfaces are a major huddle that degrades perovskite solar cells (PSCs) performance. Therefore, removing these are essential for the implementation of high-performance PSCs. In this presentation, we will introduce various approaches for novel interface modulators to improve overall PSC-performances, and then we will move the various and powerful additive approaches having various and effective C=O and O-H functional groups as a novel functional additive, which can suppress imperfections by to improve the crystallization process and passivate them at the same time. In addition, we will further focus on other passivation engineering and their comparison as a promising way to obtain high-quality perovskite and corresponding high efficiency perovskite solar cells, which also show long-term stability and better moisture resistance capabilities. Finally, if time is given, approaches for high-quality, large-area film formation will also be introduced. These studies could be highly beneficial for low-cost, high efficiency, and high stability perovskite solar cell applications.</p>