

2025

PSK-이녹스 신진연구자 웨비나

2025년 3월 14일(금) AM 10:30 - 11:30 | 온라인 상
<https://kaist.zoom.us/j/86868657182>

주최 한국고분자학회

주관 콜로이드 및 분자조립 부문위원회

후원 INNOX

○ 초대의 글

'PSK-이녹스 신진연구자 웨비나'는 우수한 연구역량을 가진 신진연구자를 발굴하여 교류의 장을 넓히고자 (주)이녹스의 후원과 한국고분자학회 주최로 마련한 온라인 세미나입니다. 이번 세미나에서는 고분자 분야 중에서도 특히 콜로이드 및 자기조립소재를 이용하여 선도연구를 수행하는 신진연구자의 우수한 연구성과를 공유하는 자리를 마련하였으니 관심있는 분들의 많은 참여 부탁드립니다.

○ 일정

AM 10:30 - 11:30

Universal van der Waals 3D Printing beyond Integration

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ABSTRACT: Van der Waals integration of two-dimensional (2D) heterostructures provides a versatile approach to assemble various materials into tailored structures without the need for lattice matching, intricate processing, or consideration of material incompatibilities. Successful integration depends on employing a reliable and efficient transfer medium and technique. In this study, we have demonstrated that the structured liquids, such as hydrogels/organogels, as efficient transfer medium for the reliable transfer of 2D materials and beyond. The gel-assisted transfer method enables cleaner transfers, ensuring uniform internal strain distribution and improved transfer stability. Additionally, the gel medium serves as an ideal medium for layer-by-layer laser printing due to its transparency, allowing precise laser patterning and maintaining a clean interface between layers. Individual layers can be freely patterned by laser and also can be stacked without any additional alignment processes, thus finally providing state-of-the-art printing capability. We demonstrated that gel-mediated laser printing facilitates the stacking of a wide variety of materials, extending beyond 2D systems, thereby opening up new opportunities for hybrid van der Waals integration in device fabrication.



한국고분자학회
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