

2026

PSK-이녹스 신진연구자 웨비나

2026년 11월 17일(화) PM 17:00 - 18:00 | 온라인 상
<https://kaist.zoom.us/j/86135260690>

주최 한국고분자학회

주관 에코소재 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 에코소재를 이용하여 선도연구를 수행하는 신진연구자의 우수한 연구성과를 공유하는 자리를 마련하였으니 관심있는 분들의 많은 참여 부탁드립니다.

○ 일정

PM 17:00 - 18:00

New Methods for Reprocessing Thermoset Polyurethanes

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ABSTRACT: Thermoset polyurethanes (PUs) are challenging to recycle due to their crosslinked network structures. This talk presents catalyst-enabled recycling strategies for thermoset PUs based on dynamic carbamate exchange chemistry, spanning fundamental mechanistic studies of catalysis to the development of scalable reprocessing approaches that generate recycled materials in commercially relevant formats. We first investigated the mechanisms of externally added catalysts and catalysts inherently present in PU synthesis and correlated their catalytic activity with reprocessing PU foams into compact PU films. Building on this chemistry, we developed two different reprocessing methods to create recycled PU materials that better align with existing market demands: (1) foam-to-foam reprocessing to achieve circular recycling of soft PU foams, and (2) reactive blending of rigid PU foam with thermoplastic PUs to create elastomeric materials with enhanced reprocessability. Together, this talk highlights recent advances and future opportunities for advancing PU circularity through catalyst and process design.



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The Polymer Society of Korea