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“Atomically dispersed nickel species in a two-dimensional molecular sieve: Origin of high activity and stability in dry reforming of methane”

인천대학교 에너지화학공학과 에너지환경촉매연구실 (8호관 550호)의 박사과정 권성준 (제1저자), 석사 졸업생 안혜진 (공저자), 박민범 교수 (교신저자)는 환경촉매 분야 세계적인 학술지인 **Appl. Catal. B (IF 19.503, JCR 0.93%)**에 연구결과를 발표하였고, PCT 해외 특허 출원을 완료하였다. 이번에 새롭게 개발된 2차원 구조의 메탈-제올라이트 기반 소재는 다양한 불균일계 시스템에 적용 가능한 플랫폼 기술로 그 가치를 평가 받고 있다.

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Atomically dispersed nickel species in a two-dimensional molecular sieve: Origin of high activity and stability in dry reforming of methane

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ABSTRACT

Two-dimensional (2D) molecular sieves with highly dispersed nickel species are attractive catalysts for the dry reforming of methane (DRM) because of the ease of molecular diffusion and the deactivation resistance by coke deposition. Here we report the single-step preparation of a 2D nickel silicate molecular sieve with delaminated



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