

연료전지용 코어-셸 구조의 전극촉매 및 그 제조방법

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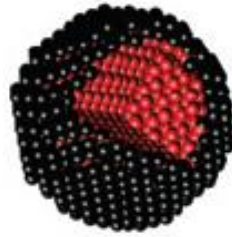
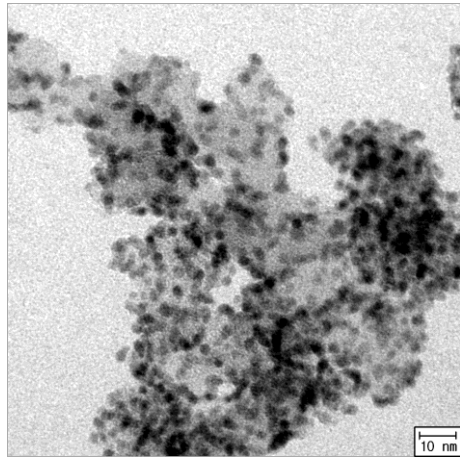
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1. 기술의 개요

Ether utilized

Core: Pd₃M₁/C

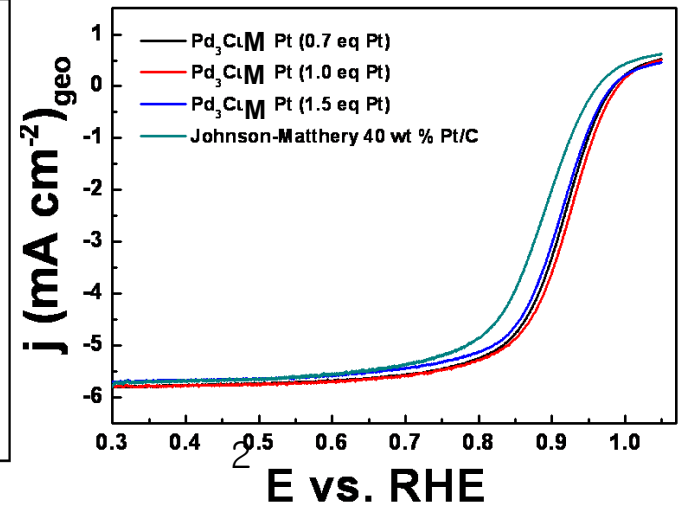
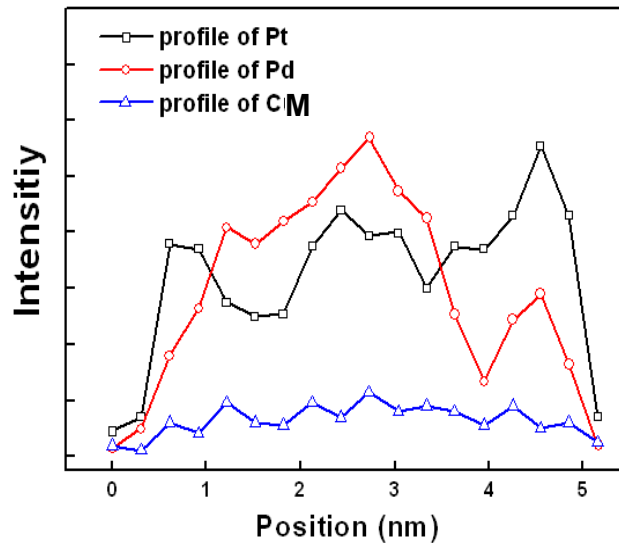
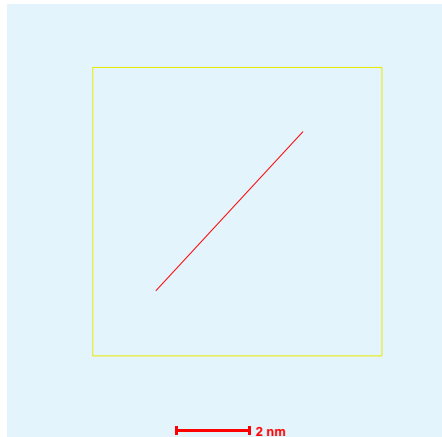
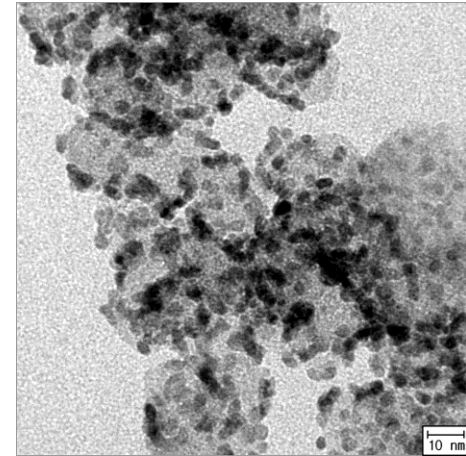


Simple synthetic method

Pd₃M₁@Pt/C

H₂PtCl₆, ester

Without stabilizers
No heat treatment

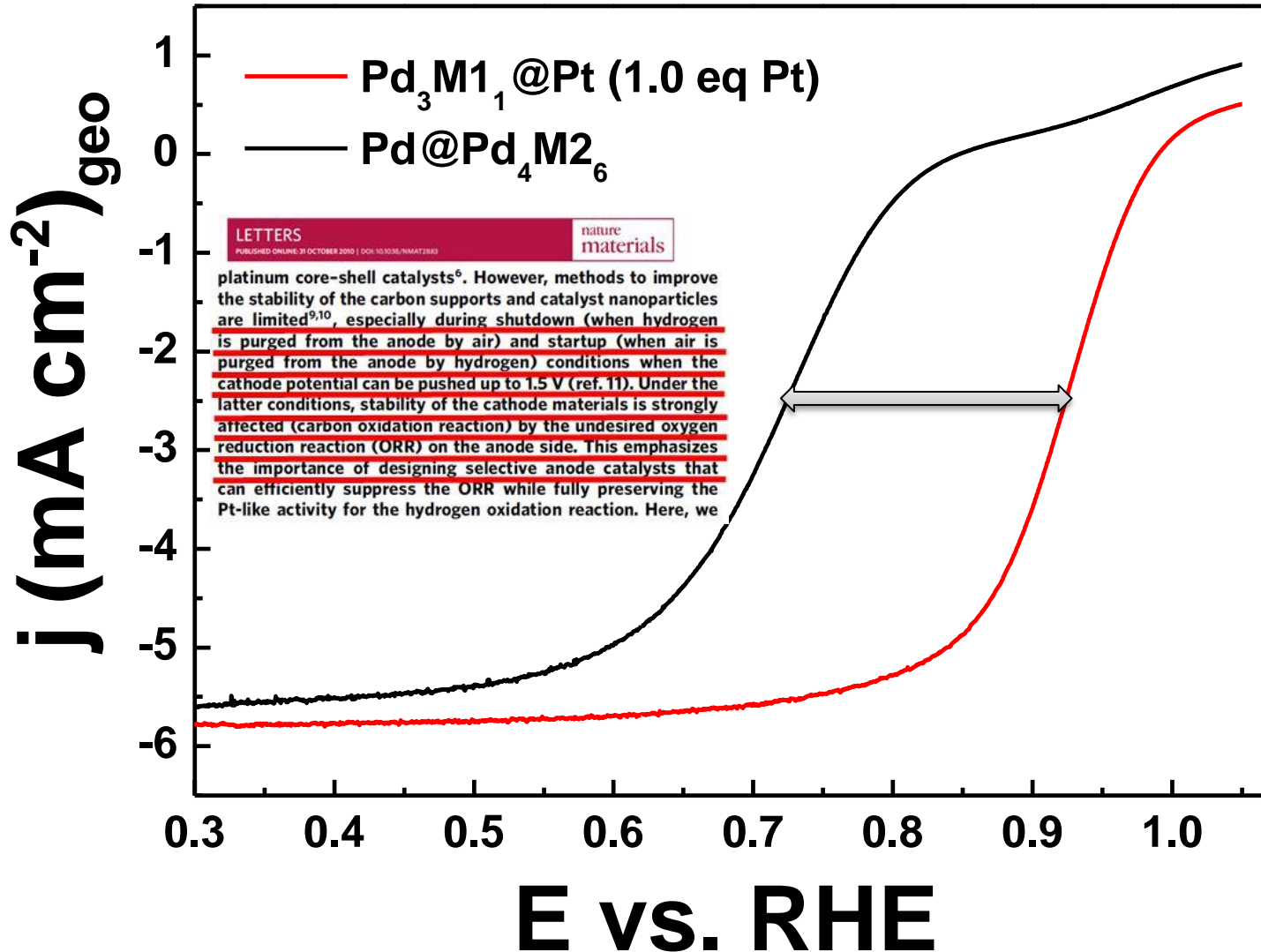


2. 기술의 적용분야 및 응용제품



3. 본 기술의 개발 상태

Core-Shell 촉매 : Pd@PdM/C - Selectivity



4. 본 기술의 특징 및 차별점

기존기술의 문제점

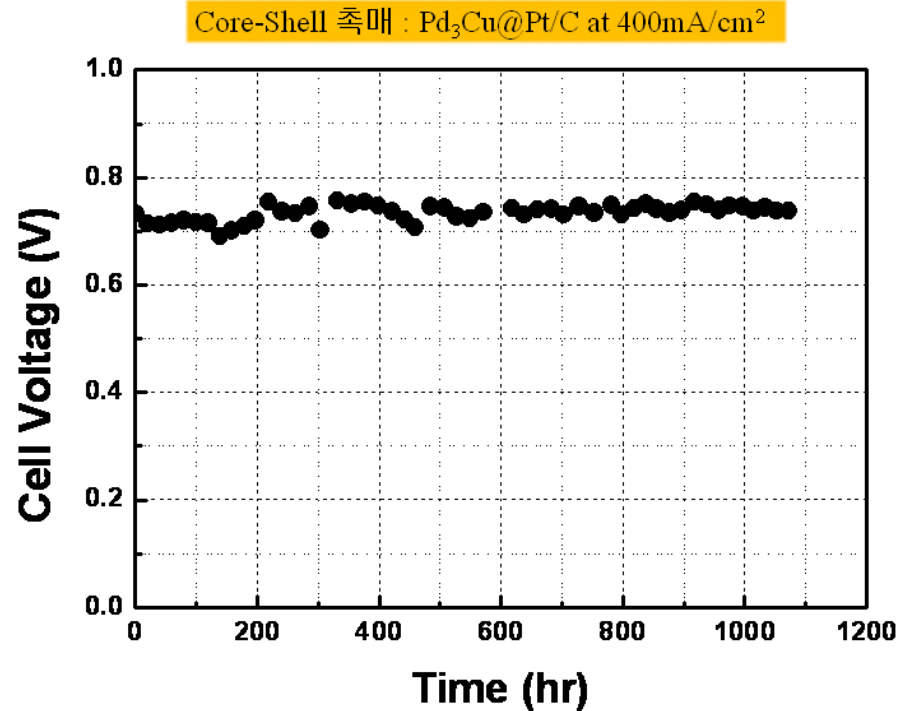
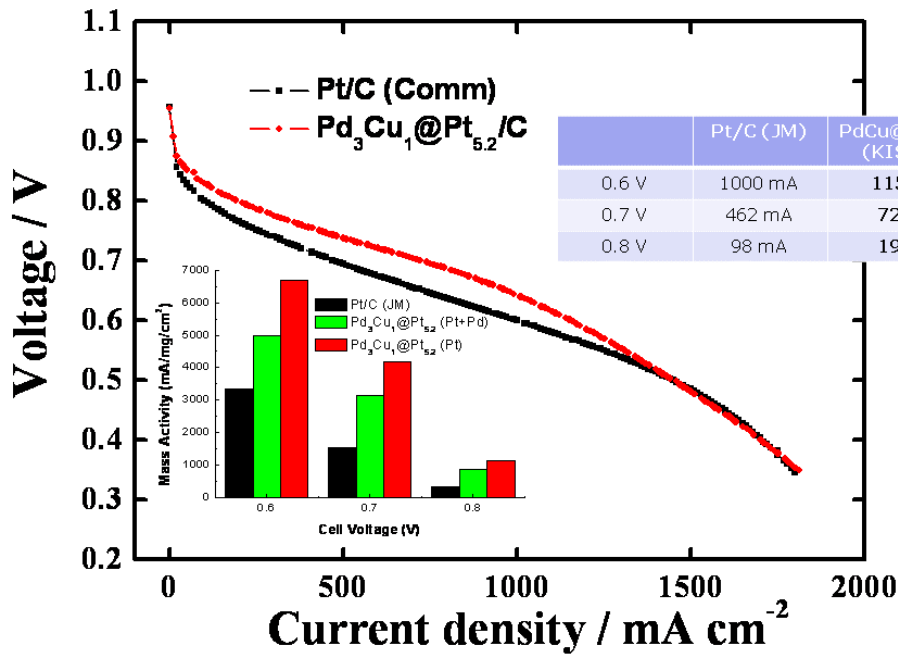
- Core-Shell 제조 후 Carbon 담지:

담지량 조절이 어려움, 안정성에 문제가 있음.

-안정제의 사용 필요, 열처리 과정이 필요:

열처리 과정에서 구조가 망가짐, 성능저하의 원인.

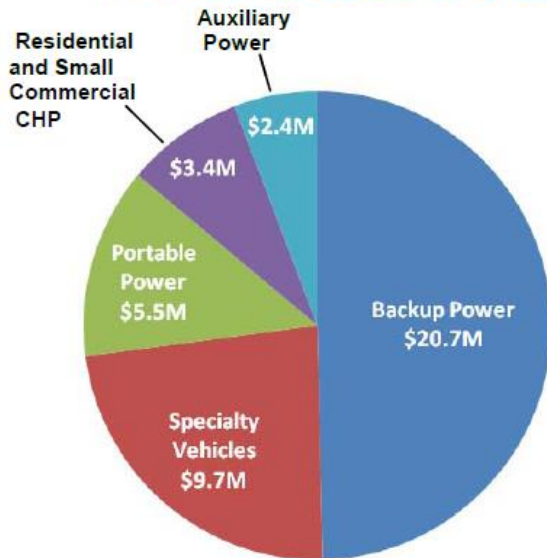
➔ 반쪽 전위까지만 사용, 실제 단위전지에 적용 예가 거의 없음.
상용화를 위한 대량화가 용이



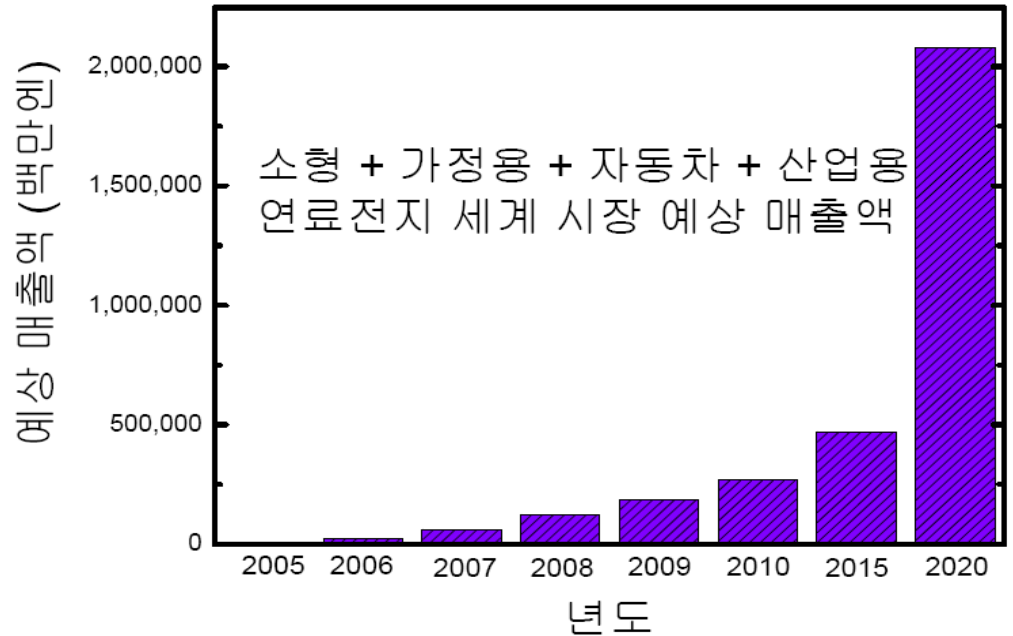
5. 관련제품의 시장현황 및 규모

FROM the LABORATORY to DEPLOYMENT:

DOE funding has supported R&D by all of the fuel cell suppliers involved in these projects.



Approximately \$51 million in cost-share funding from industry participants—for a total of about \$93 million.



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