Realization of a Fuel Cell System with Improved Efficiency and Durability and Reduced Costs

Development of Next-Generation Fuel Cell Systems Using Innovative Materials

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Summary :

In this project, we develop innovative materials for catalysts, electrolytes, ionomers, bipolar plates, etc., and realize the next-generation fuel cell systems for heavy duty vehicles. The fuel cell systems include (1) high-temperature proton conductive membrane fuel cells (HT-PEMFCs), (2) anion-exchange membrane fuel cells (AEMFCs) and (3) (solid oxide) proton-conductive fuel cells (PCFCs). These fuel cell developments are supported by cross-sectoral (4) the system evaluation group and (5) the advanced analysis, calculation, DX-MI technology group.