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(54) Title: NI/CGO AND NI-RU/CGO BASED PRE-REFORMING CATALYSTS FORMULATION FOR METHANE RICH GAS PRODUCTION FROM DIESEL PROCESSING FOR FUEL CELL APPLICATIONS

Figure 1



TEM images of Ni/CGO

(57) Abstract: In one aspect, the invention provides a catalyst for converting diesel type liquid hydrocarbons to methane rich gas. The catalyst includes a nickel component, a cerium oxide component, and gadolinium oxide component. The catalysts provide high conversion, selectivity, and stability compare to the state of the art commercial catalysts. The catalyst compositions can improve the overall fuel cell efficiency for both mobile and stationary fuel cell applications.



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