

Preparation and characterization of Ir catalyst supported on alumina

김택희^{1,2}, 이 준¹, 홍창국^{1,2}, 김수겸³, 이균호³, 유명종³,
최준민³, 조성준^{1,2,*}

¹Department of Advanced Chemicals, Chonnam National University; ²Center for Functional Nano Fine Chemicals, Chonnam National University; ³Satellite Thermal and Propulsion Department, Korea Aerospace Research Institute (sjcho@chonnam.ac.kr*)

Iridium catalyst has been extensively used in the hydrazine monopropellant thruster since the catalyst was pioneered by the Shell Chemical Co. in early 1960's. Recently, the iridium catalyst was also reported to catalyze the decomposition reaction of NH_3 below 500K for the generation of CO_x -free hydrogen for fuel cell application. Such the reaction was affected by the structure and the size of the nanoparticle. In the present work, the ultra high loading polycrystalline Ir nanoparticle was prepared and characterized with SEM, EDX, TEM, XRD, BET, H-chemisorption.