甲第196号証

国立研究開発法人
新エネルギー・産業技術総合開発機構

▲成果報告書リストはこちら

成果報告書詳細

管理番号	20160000000621
タイトル	*平成27年度中間年報　エネルギー・環境新技術先導プログラム　金属水素間新規熱反応の現象解析と制御技術
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委託先名	株式会社テクノバ　日産自動車株式会社　国立大学法人九州大学　国立大学法人東北大学
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和文要約	
英文要約	Interim Report for the period of H-27 (2015) to H-28 (2016) on R&D Subject: Advanced Research Program for Energy and Environmental Technologies / Phenomenology and Controllability of New Exothermic Reaction between Metal and Hydrogen Outline of Project: This NEDO-MHE (metal hydrogen energy) project aims at verification of the new exothermic reaction of nano-metal hydrogen gas systems and clarification of development subjects for the next stage national project, by the following works: 1) Installation of a new precise calorimetry system in Tohoku University and confirmation of the new exothermic reaction by it. 2) Evaluation of the new exothermic phenomena between nano-metal and hydrogen gas from various analysis angles of co-operating experimental works of 6 collaborated parties (Technova Inc., Nissan Motors Co., Tohoku U., Kyushu U., Nagoya U, Kobe U.) . 3) Feasibility study on realization of commercial energy devices and status study on world- wide works. 4) To hold the leading R&D committee in every two months to discuss status results academically and strategically. Brief Summary of Implemented Works:. 1) A design was made for new MHE calorimetry facility by improving/adding temperature sensors, heat flux estimation, and oil cooling parts to the basic Technova-Kobe MHE experimental system, aiming at more precise calorimetric evaluation of proposed MHE sample runs. In the reported period, we have

	finished ordering necessary components/parts, and some have been already delivered to Tohoku University for the system assembling to be started in April 2016. 2) By using the existing MHE experimental system at Technova-Kobe U in Fukae Campus, examination works have been done with two typical MHE samples (PS3=nanoPd/mesosilica and PNZ3=Pd1Ni7/ZrO2) to carry out multi-angle analyses on excess heat phenomena which are difficult to explain by ordinary chemical reactions. Discussion has been done for preparing next samples for MHE examination. Kyushu University and Nagoya University are independently making own designed nano-metal samples. These samples will be tested in May and July 2016. 3) Survey works on world-wide works on anomalous excess heat phenomena by various methods are underway, for understanding current status of technological developments. 4) Leading R&D Committee meetings: The first LRDC meeting was held at Technova on February 5 2016 with attendees from 6 parties, NEDO members and an external science monitor. Presentations on analyses of No.1 co-operational experiment with PS3 sample were made by 6 parties, and development status of each party was reported. Some hot discussions were exchanged on experimental data and future planned works. LRDC will be held in every two months.
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