

平成 29 年度第 3 回 VBL セミナー

3rd VBL Seminar, 2017

日時：平成 29 年 9 月 25 日（月）11 時 00 分～12 時 00 分

場所：名古屋大学 VBL3 階ミーティングルーム

講師：Siti Machmudah 特任准教授（VBL 外国人客員教員，スラバヤ工科大学／ITS Surabaya（インドネシア））

題目：Hydrothermal and Solvothermal Synthesis for Composite Nanomaterials Preparation

要旨： Nanocomposites have attracted a huge amount of interest due to their improved mechanical properties, dimensional stability, thermal/chemical stability, and electrical conductivity. Nanostructures are found to be of great significance because of their inherent properties such as large surface area to volume ratio and the engineered properties such as porosity, stability, and permeability. Composite material can achieve multifunctionality by combining the relevant, desirable features of different materials to form a new material having a broad spectrum of desired properties. Composite nanomaterials have been prepared by several techniques including sol-gel, precipitation, spray pyrolysis, hydrothermal, and solvothermal. In this presentation, hydrothermal and solvothermal techniques will be performed for preparation of CeO₂-ZrO₂ and ZnO-SiO₂ nanocomposites because these techniques require simple equipment and easily controlled particle size and morphology by varying the synthesis conditions. The fabricated CeO₂-ZrO₂ nanocomposites with certain compositions could enhance their chemical and thermal properties to be used as electrolyte of Solid Oxide Fuel Cells. ZnO-SiO₂ nanocomposites fabricated by solvothermal synthesis increased their chemical and optical properties for energy saving.

問い合わせ先：

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