

# Renewable Energy and Resources & Energy Materials and Fuel Cell Research

August 27-28, 2018 | Boston, USA

## Effect of storage time on the properties of seeds, oil and biodiesel from *Reutealis trisperma*

**M Yusuf Abduh**

Bandung Institute of Technology, Indonesia

The time profile of moisture content for different fractions (PT-3, PT-7, PT-14, NPT-21) of trisperma seeds (*Reutealis trisperma*) was determined at a relative humidity of 67% and 27°C for a four months period. The diffusion coefficient of water in the trisperma seeds was determined using an analytical solution of the stationary diffusion equation and used to model the moisture content in the seeds. The total oil content of the seeds and the acid value of the extracted oil from the stored seeds were periodically measured for four months. The acid value of the extracted oil from the stored seeds increased for all conditions (1.1 to 2.8 mg KOH/g for PT-3, 1.9 to 9.9 mg KOH/g for PT-7, 3.4 to 11.6 mg KOH/g for PT-14 and 4.7 to 25.4 mg KOH/g for NPT-21). The acid value of trisperma oil and biodiesel that has been stored for four months (27°C, closed container) was also determined. Upon storage, the acid value of trisperma oil and biodiesel only slightly increased from 1.1 to 1.3 mg KOH/g and 0.4 to 0.43 mg KOH/g, respectively.

### Biography

Muhammad Yusuf Abduh has completed his PhD at the age of 31 years from the University of Groningen. He is the co-founder of Bio Proshafa Karya and Biorefinery Society, start-up companies in the valorization of renewable sources to produce bioproducts. He has published more than 10 papers and has been serving as a reviewer in reputed journals.

p262868@gmail.com

Notes: