# CENCERE EASTERN ILLINOIS UNIVERSITY

#### **Biomass Gasification Research**

### **Instrument Procedure: Moisture Balance**

## **Description**

The moisture content tested used a Denver IR-60 Moisture Analyzer as shown in Figure 1. This is a moisture analyzer that can liberate moisture through infrared heat, and thus showing the moisture percentage of solid material.



Figure 1: Moisture Balance

#### **Procedure**

To test the moisture content of biomass, complete the following steps.

- 1. Randomly pick some pieces of biomass and grind them into finer particles.
- 2. Put approximately 5 g sample on the sample pan and put the pan on the balance.
- 3. Close the top lid on the balance and turn it on to start analyzing moisture.
- 4. Wait until the analyzing finished then record the result from the display.
- 5. Randomly pick some other pieces of biomass and repeat the above four procedures four more times.
- 6. Take the averaged results from the repeated tests as final result.