

# SAIP 2011



Contribution ID : 20

## **Clay/sawdust porous pots for water treatment**

Thursday 14 Jul 2011 at 17:00 (02h00')

### **Content :**

The supply of adequate clean water to communities is a problem in many countries, especially in Africa where the rural population depend on water from rivers, dams and streams for domestic use. Such water contains many chemical substances and microorganisms that affect the health of human beings and animals. Use of simple water purification systems, like filters, by households, is a possible solution to this problem. In our laboratory, we have developed a porous pot water filter using sawdust and clay. Both materials are available locally. Sawdust was sieved using 100, 250 and 600 micrometer sieve and then mixed with clay in the clay/ sawdust ratio of 1:3 by volume. The mixture was then used to make pots, which were porous. These pots were tested for their capacity to purify contaminated water collected from rivers. The filtration rate, as a function of the clay/coal ratio, was also measured. Subsequently, quality tests were done on the filtered water and raw water to determine the potability of the filtered water. The tests included microbiological, physical and chemical properties. The results were then compared with standards provided by World Health Organization.

### **Level (Hons, MSc, PhD, other)? :**

Other

### **Consider for a student award (Yes / No)? :**

No

### **Short Paper :**

Yes

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