August 14, 2014

0.1 Sol Fraction

1. Make sure specimen is clean and free of any contaminants.
2. If not completely dry, dry either under heated or non-heated condition for a set time.
3. Tare a clean weigh boat or piece of weigh paper.
4. Mass specimen in weigh boat or on weigh paper and record.
5. Dry specimen further.
6. Mass specimen again and record.
7. If mass has decreased significantly, continue to dry and repeat massing.
8. Fill solvent compatible container with solvent and carefully add specimen so as to not change its mass.
9. Seal container to prevent large evaporation of solvent.
10. Set aside container at elevated or room temperature for set time.
11. At appropriate time carefully remove sample and place into solvent compatible weigh boat or weigh paper.
12. Dry specimen under heated or non-heated condition for a set time.
13. Tare a clean weigh boat or piece of weigh paper.
14. Mass specimen in new weigh boat or weigh paper and record.
15. If mass has decreased significantly, continue to dry and repeat massing.
16. Once mass has leveled out, apply the following equation to determine sol-fraction, f_{sol}:

$$f_{sol} = \frac{m_i - m_f}{m_i} \tag{1}$$

where, m_i, is the initial fully dried mass, and m_f, is the post extraction fully dried mass.

17. The % sol fraction, F_{sol} can then be found by:

$$F_{sol} = f_{sol} * 100\% \tag{2}$$