

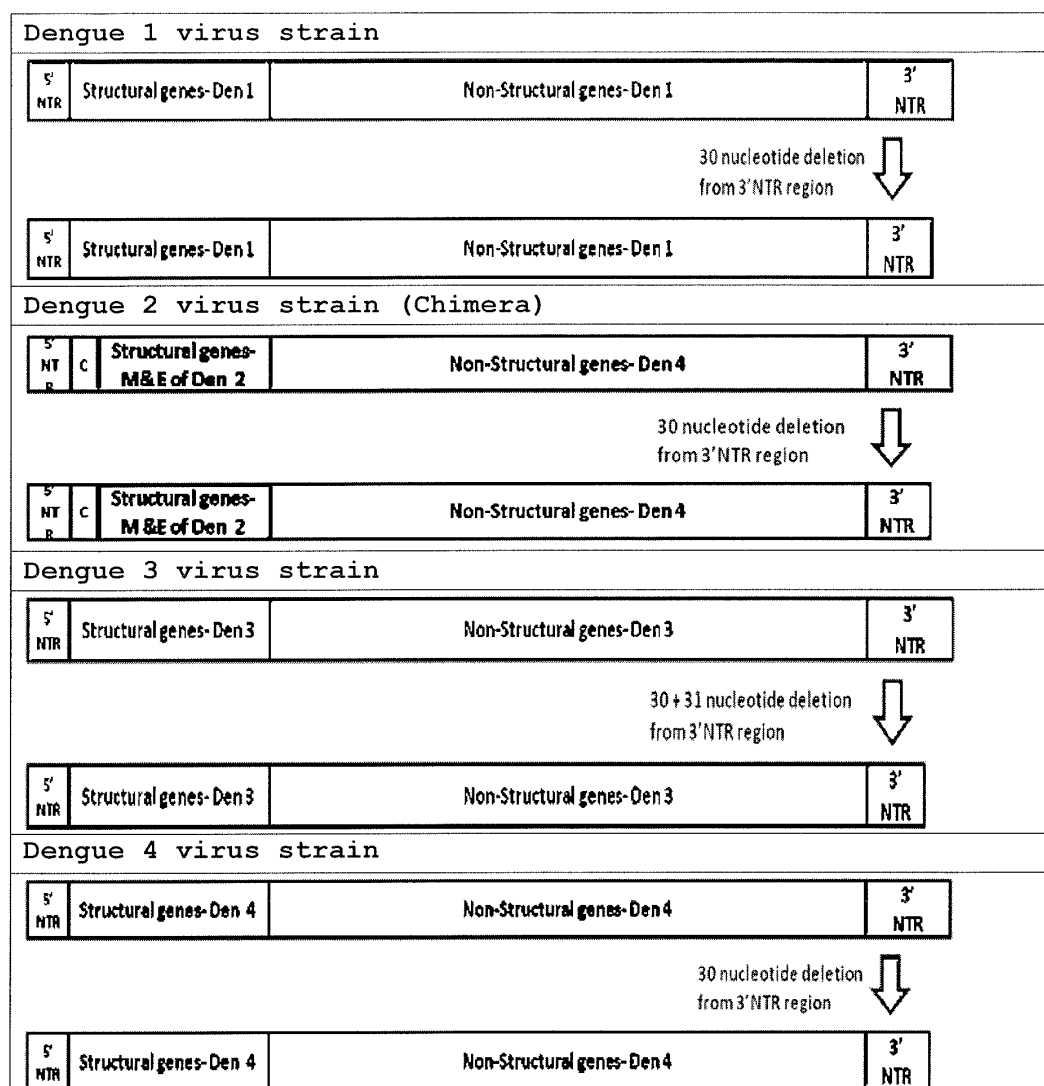


Figure 1: RNA sequence of dengue virus strains

Figure 2: Dengue virus virion structure

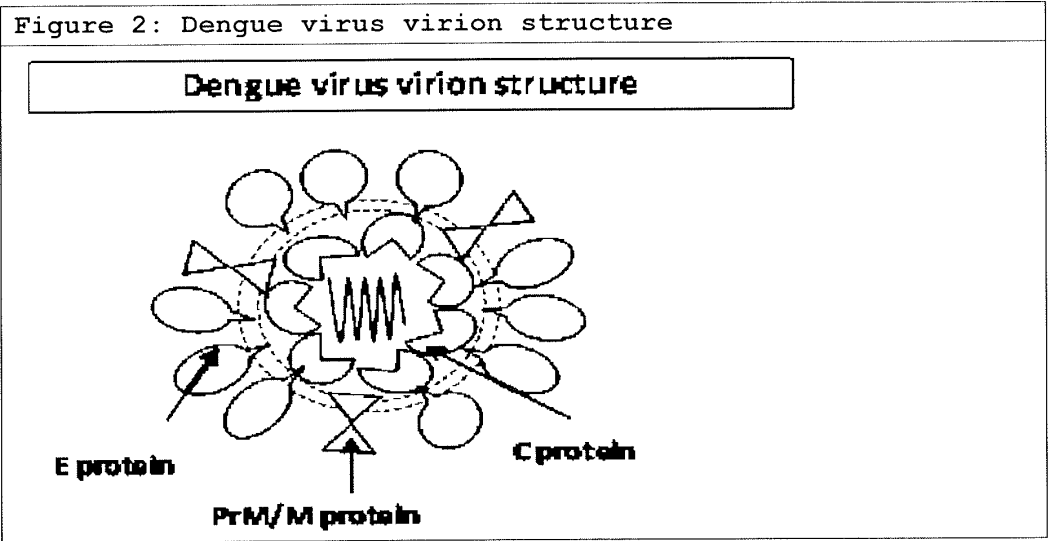
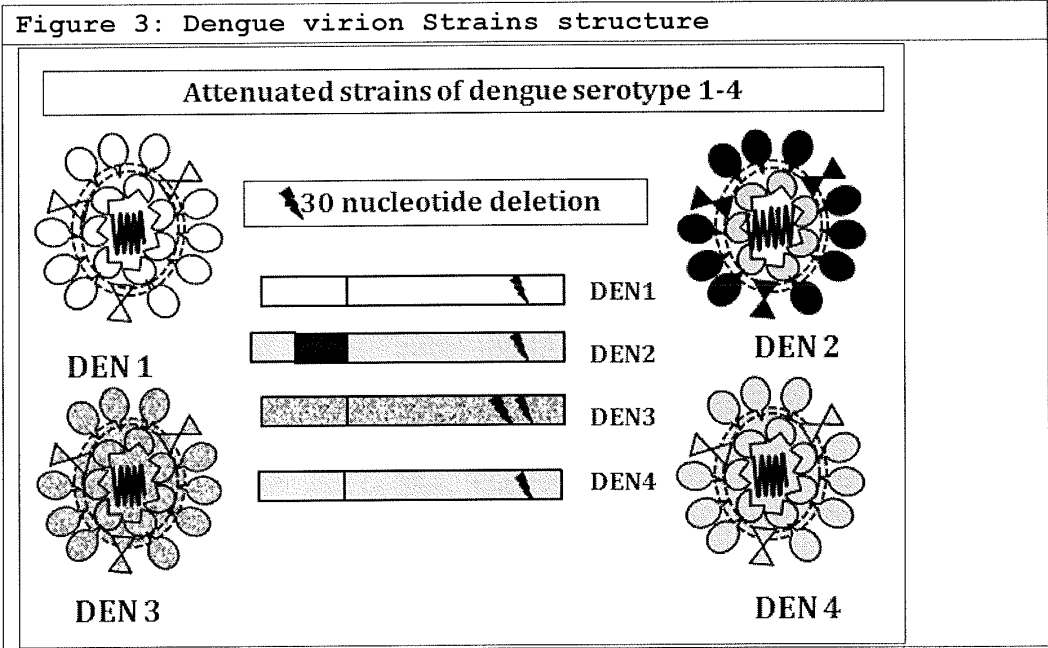
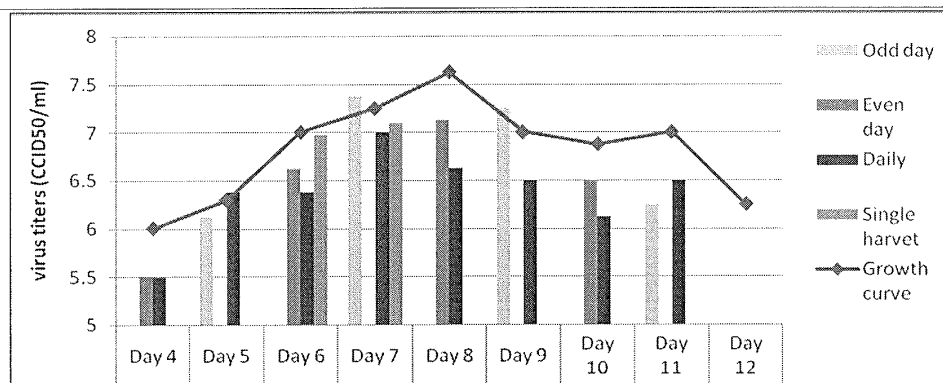


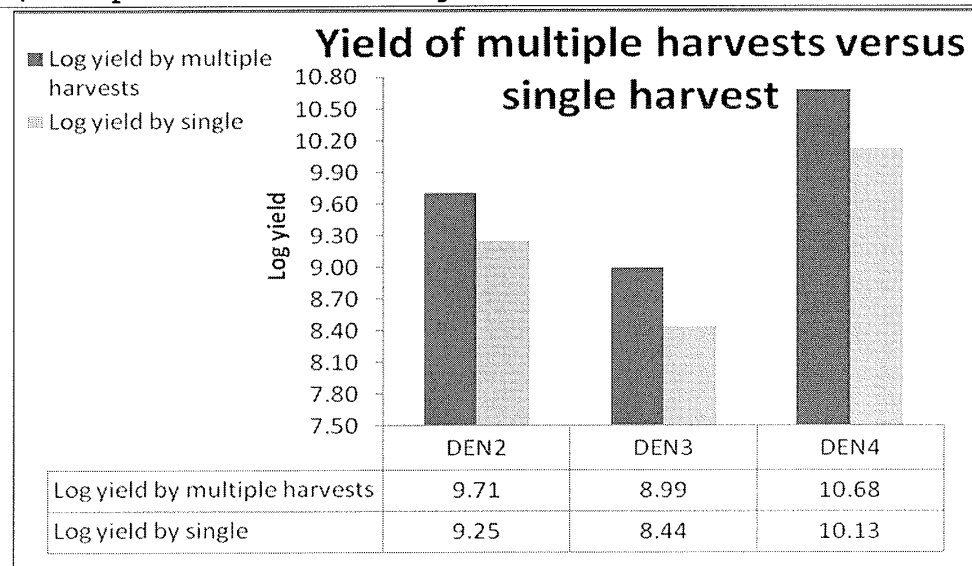
Figure 3: Dengue virion Strains structure



**Figure 4: DEN 1 Virus Log Yield Titters (CCID<sub>50</sub>/ml)  
(Multiple Harvest vs. Single Harvest)**



**Figure 5: DEN 2, 3, 4 Virus Log Yield Titters (CCID<sub>50</sub>/ml)  
(Multiple Harvest vs. Single Harvest)**



**Figure 6: Effect of Benzonase concentration on DNA content**

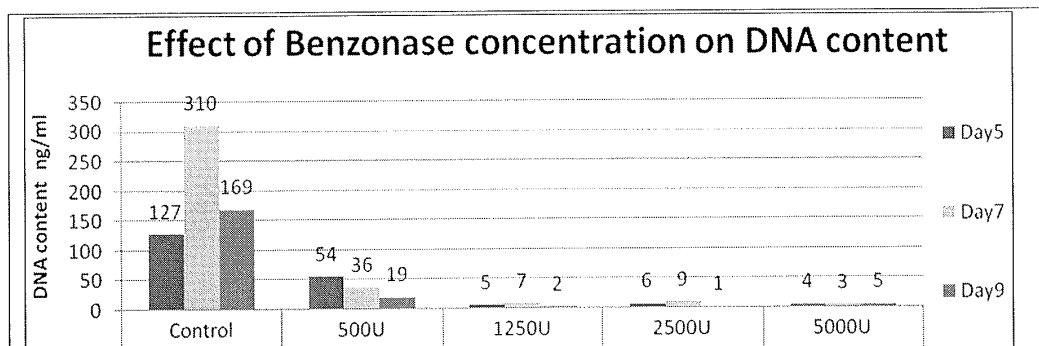


Figure 7: Effect of temperature on Cellular DNA content and virus titer

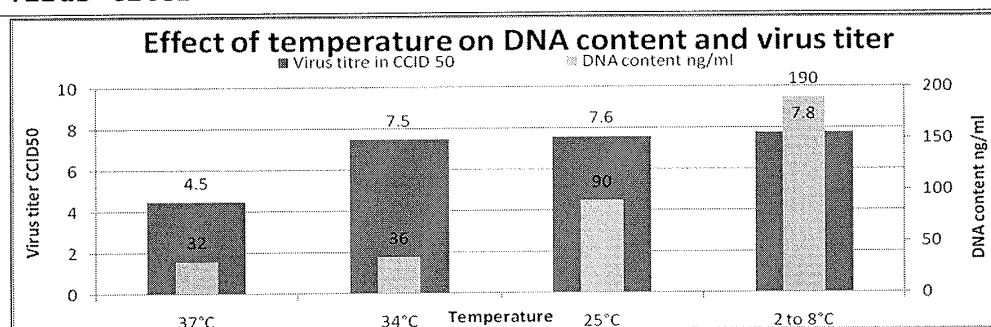


Figure 8: DEN-1 titer CCID<sub>50</sub>/ml (Liquid vs. Lyophilized)

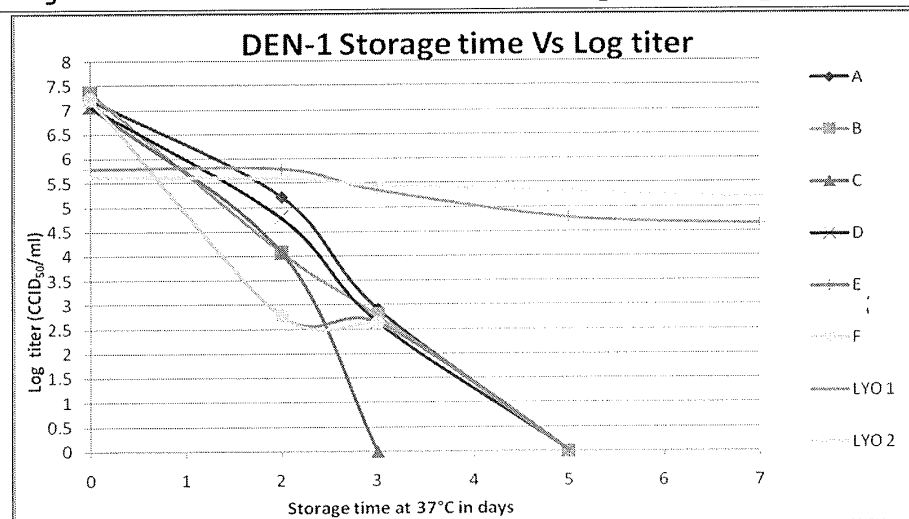


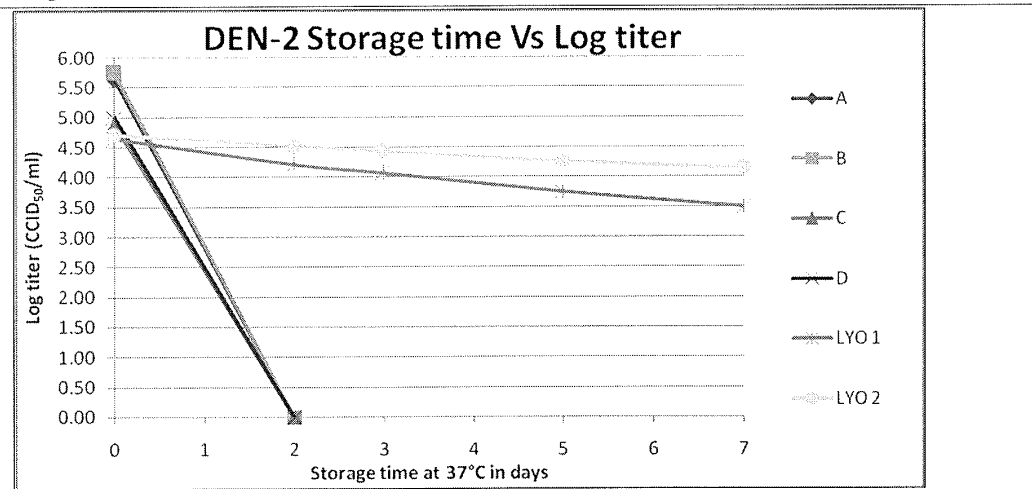
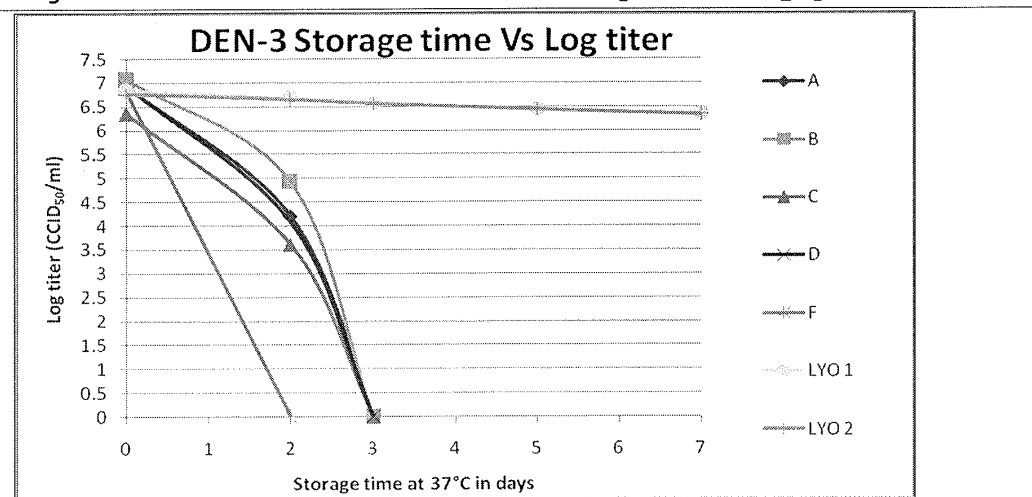
Figure 9: DEN 2 Titer CCID<sub>50</sub>/ml (Liquid vs. Lyophilized)Figure 10: DEN 3 Titer CCID<sub>50</sub>/ml (Liquid vs. Lyophilized)

Figure 11: DEN 4 Titer CCID<sub>50</sub>/ml (Lyophilized)

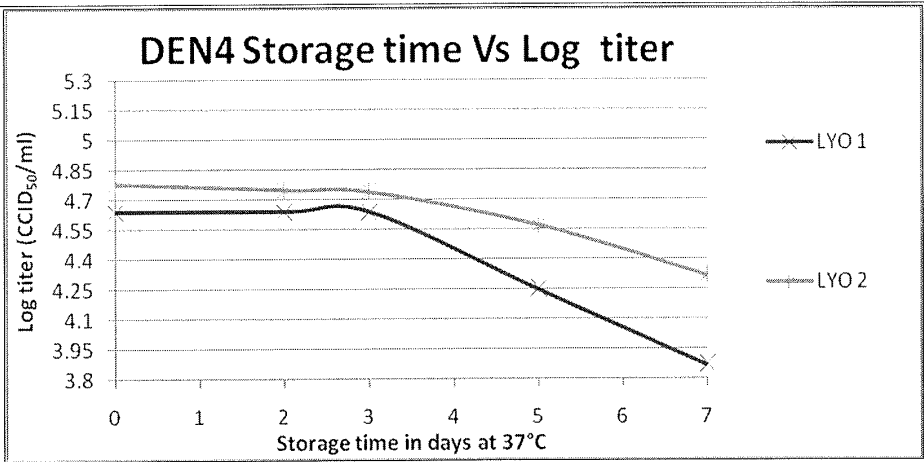
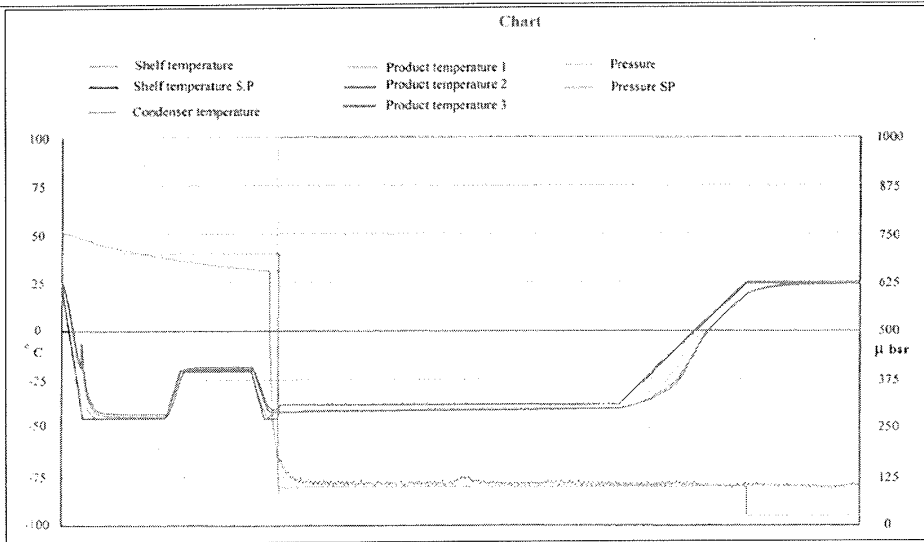
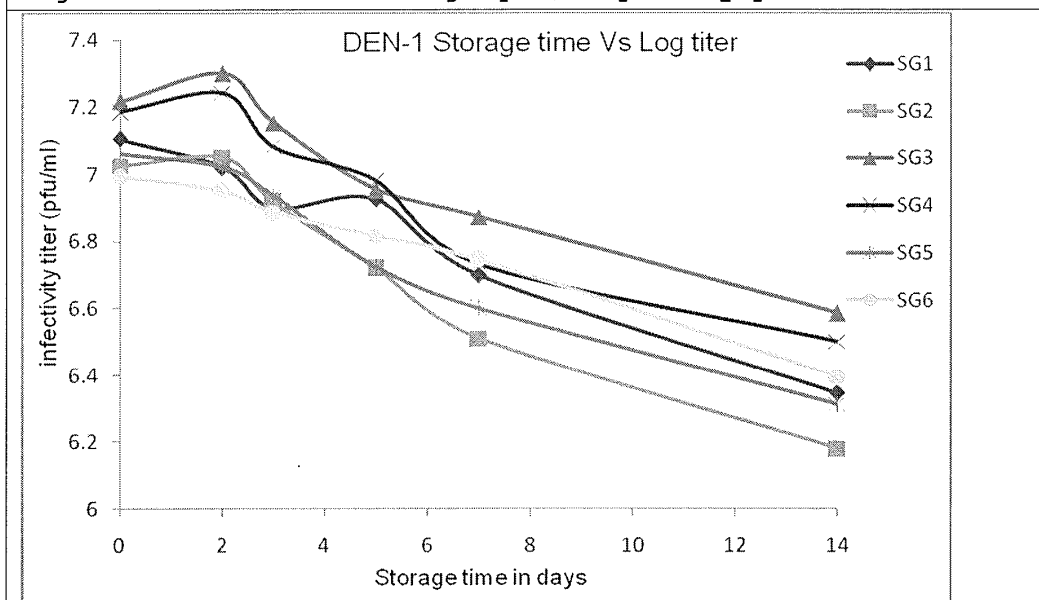
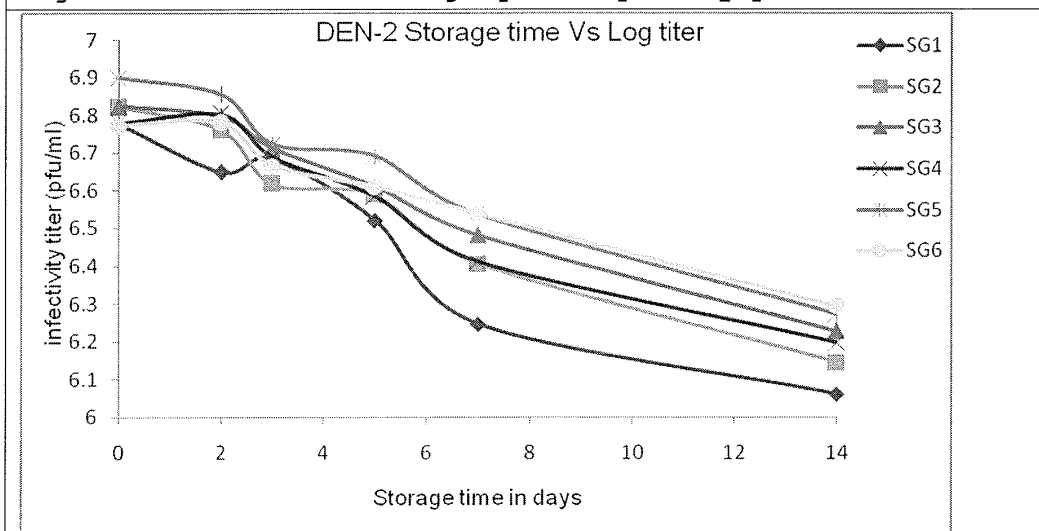


Figure 12: Lyophilization Cycle



**Figure 13: DEN 1 Titer Log<sub>10</sub> pfu/ml post lyophilization****Figure 14: DEN-2 titer Log<sub>10</sub> pfu/ml post lyophilization**

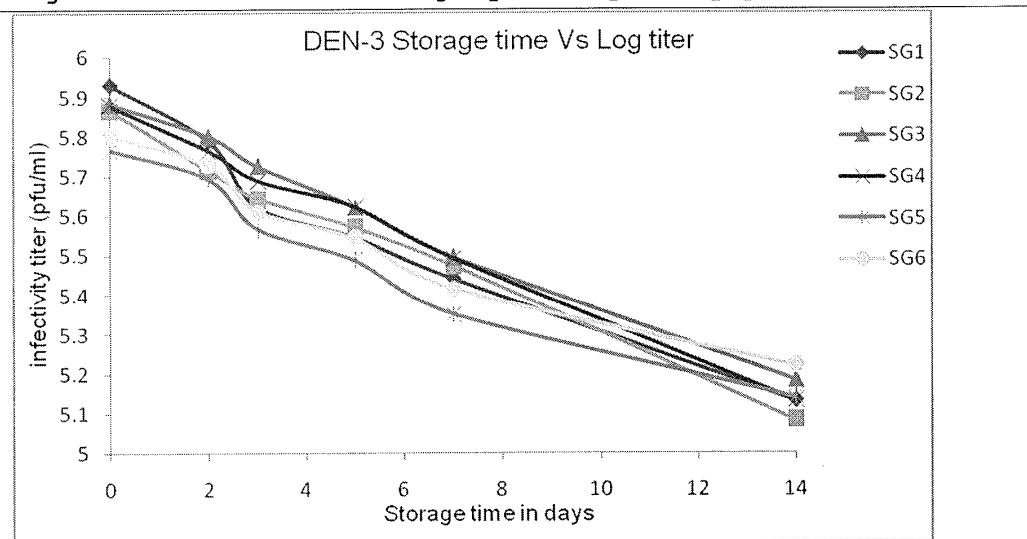
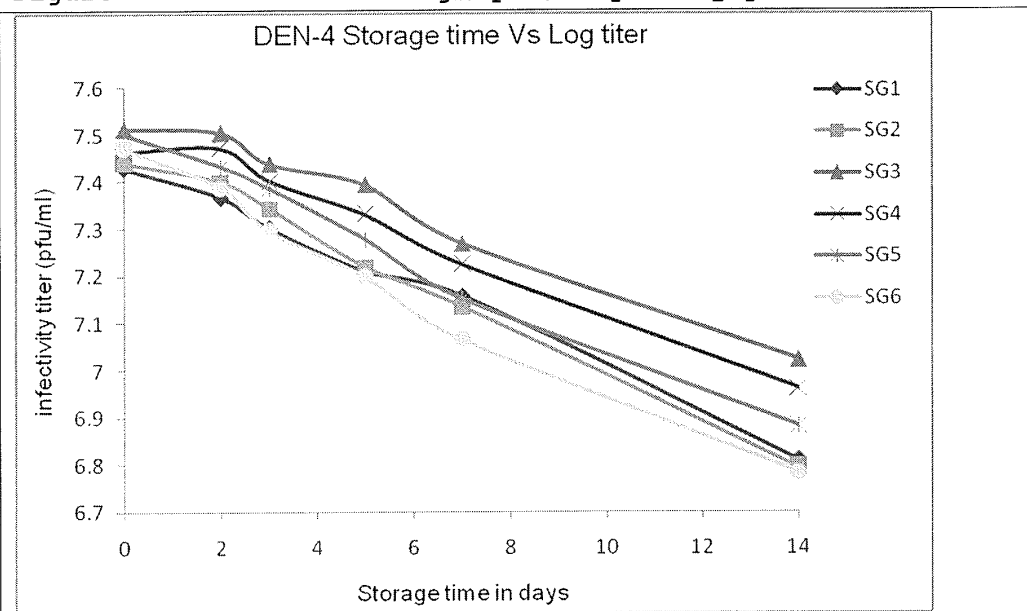
**Figure 15: DEN-3 titer Log<sub>10</sub> pfu/ml post lyophilization****Figure 16: DEN-4 titer Log<sub>10</sub> pfu/ml post lyophilization**

Figure 17A: DEN-1 titer  $\text{Log}_{10}$  pfu/0.5 ml data post lyophilization at 2-8°C upto 12 months

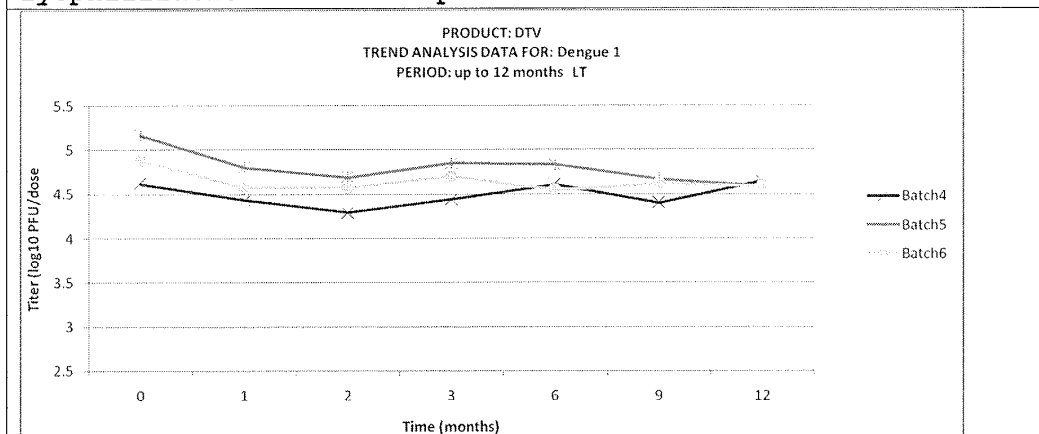


Figure 17B: DEN-2 titer  $\text{Log}_{10}$  pfu/0.5 ml data post lyophilization at 2-8°C upto 12 months

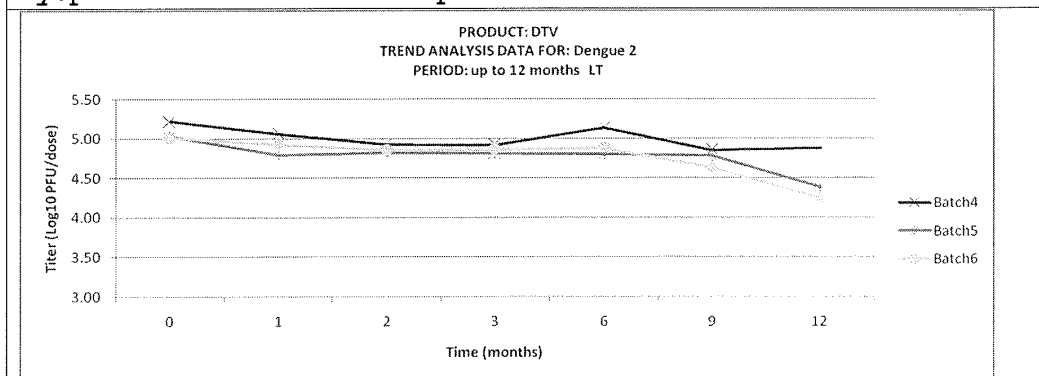


Figure 17C: DEN-3 titer  $\text{Log}_{10}$  pfu/0.5 ml data post lyophilization at 2-8°C upto 12 months

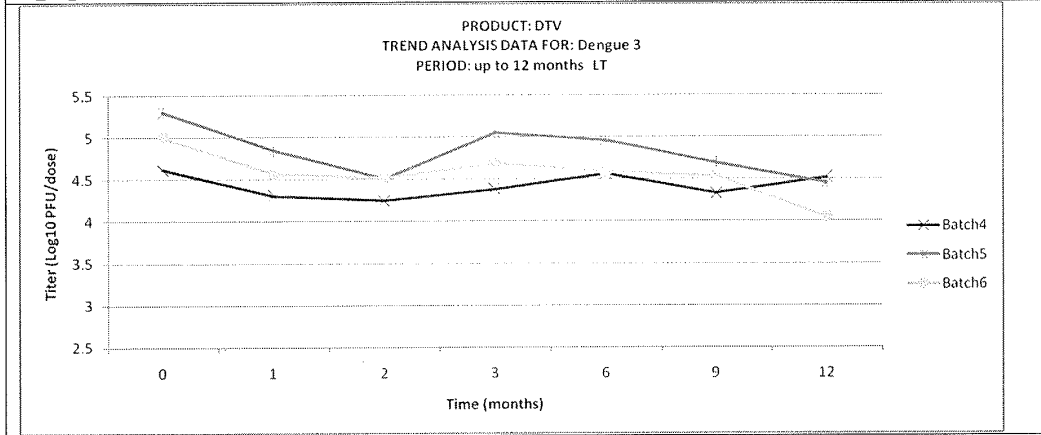


Figure 17D: DEN-4 titer  $\text{Log}_{10}$  pfu/0.5 ml data post lyophilization at 2-8°C upto 12 months

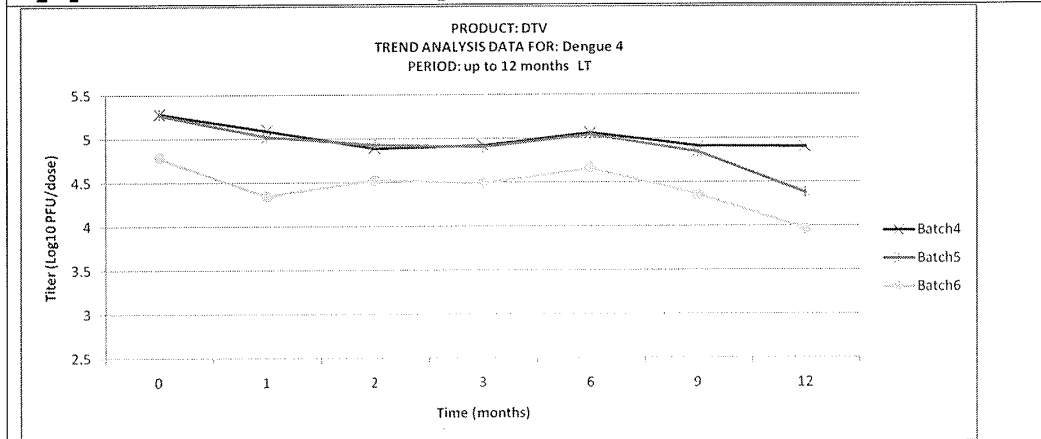


Figure 18: Dengue Tetraivalent vaccine pH data post lyophilization at 2-8°C upto 12 months

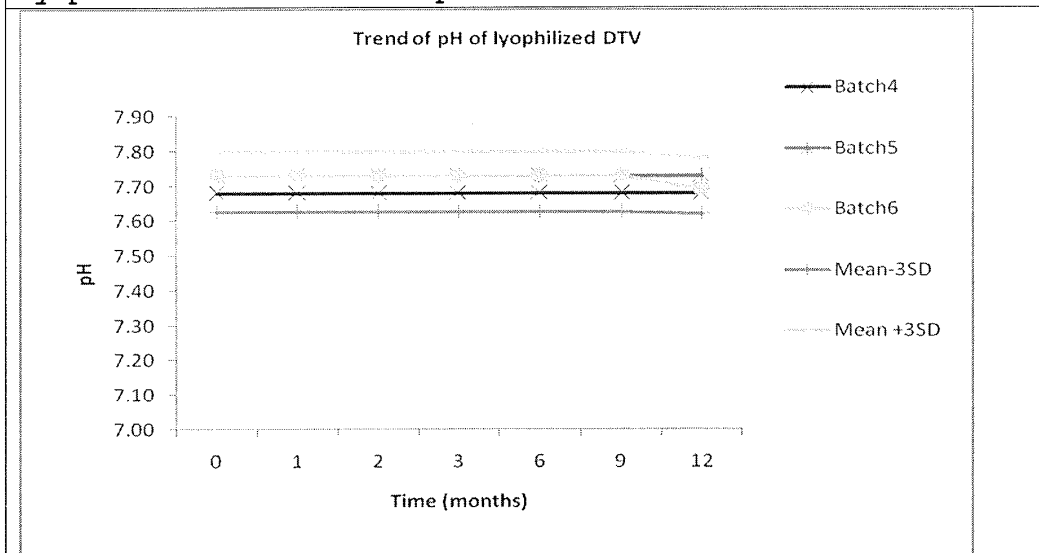


Figure 19: Dengue Tetraivalent vaccine Residual Moisture data post lyophilization at 2-8°C upto 12 months

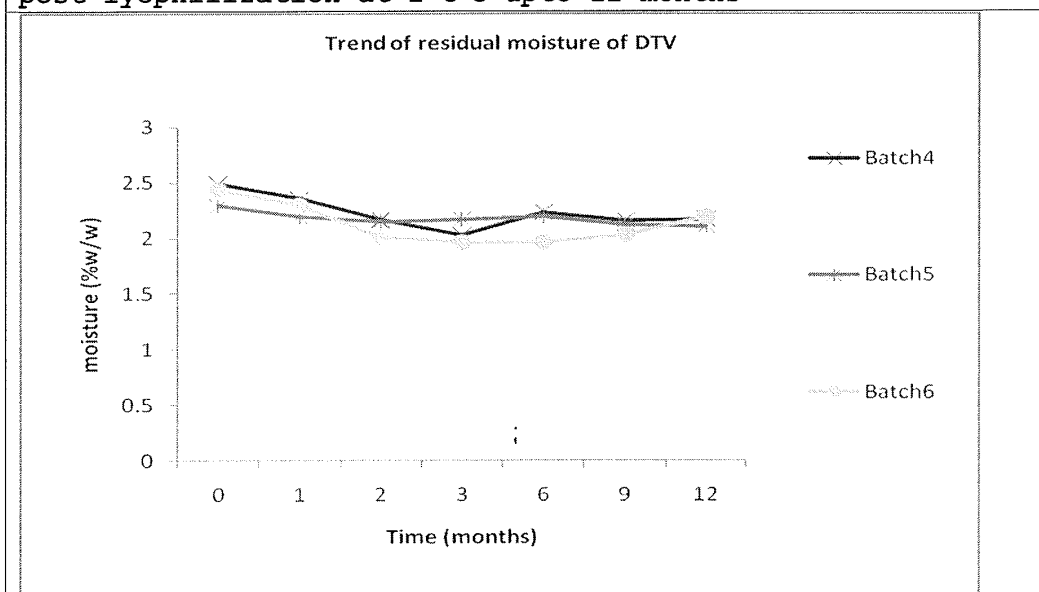


Figure 20A: DEN-1 titer Log<sub>10</sub> pfu/0.5 ml data post lyophilization at 25°C±2°C upto 6 months

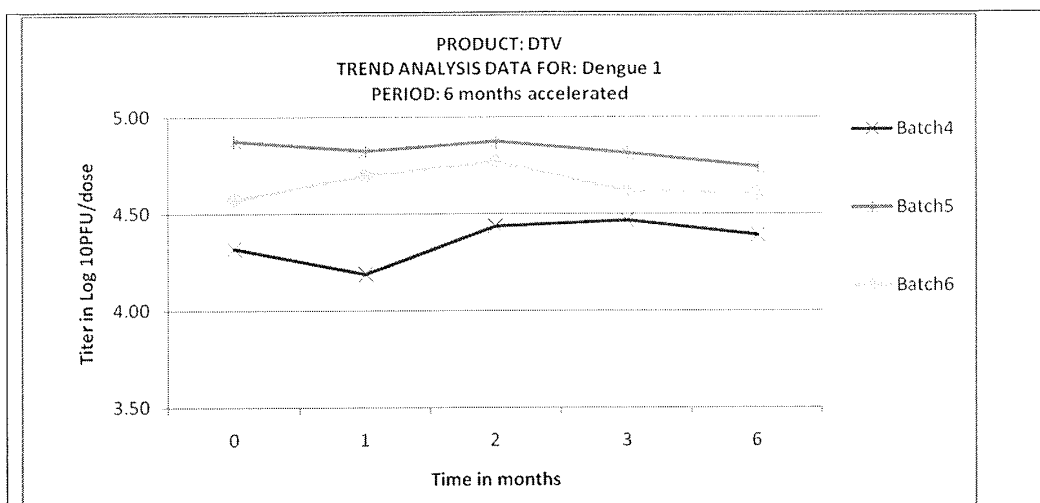


Figure 20B: DEN-2 titer Log<sub>10</sub> pfu/0.5 ml data post lyophilization at 25°C±2°C upto 6 months

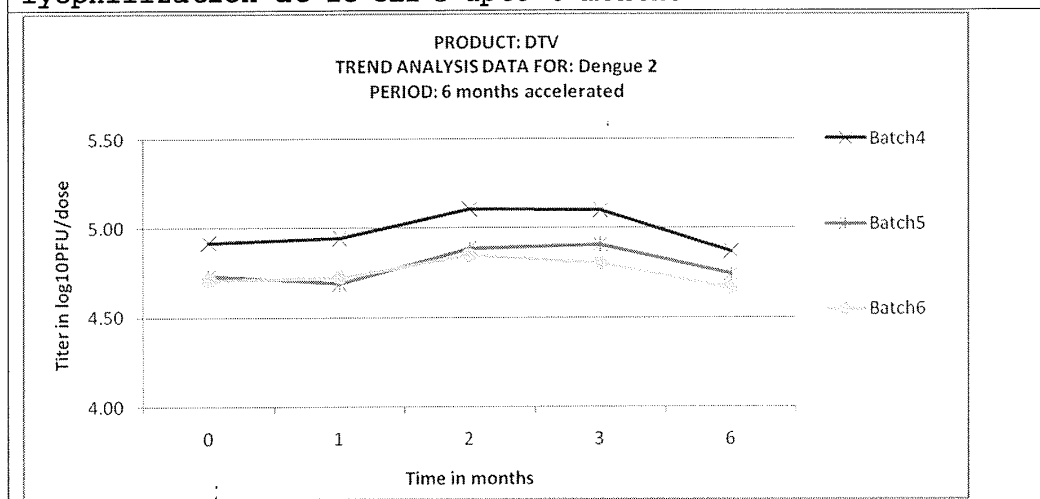


Figure 20C: DEN-3 titer  $\text{Log}_{10}$  pfu/0.5 ml data post lyophilization at  $25^{\circ}\text{C} \pm 2^{\circ}\text{C}$  upto 6 months

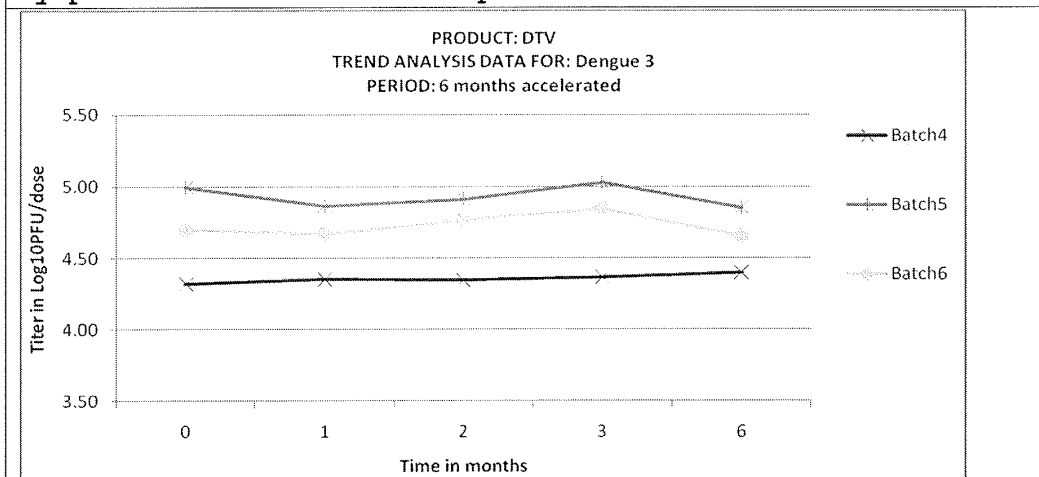


Figure 20D: DEN-4 titer  $\text{Log}_{10}$  pfu/0.5 ml data post lyophilization at  $25^{\circ}\text{C} \pm 2^{\circ}\text{C}$  upto 6 months

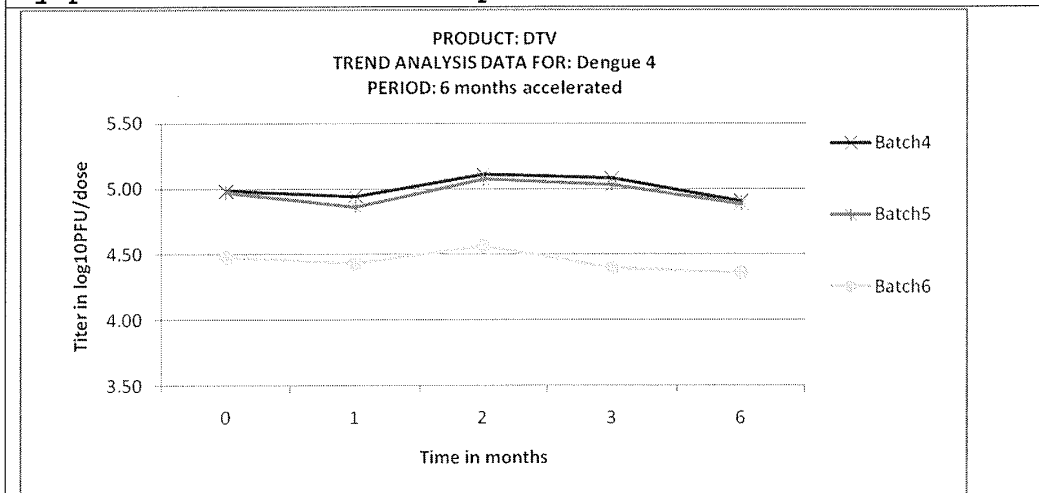


Figure 21: Dengue Tetraivalent vaccine pH data post lyophilization at  $25^{\circ}\text{C} \pm 2^{\circ}\text{C}$  upto 6 months

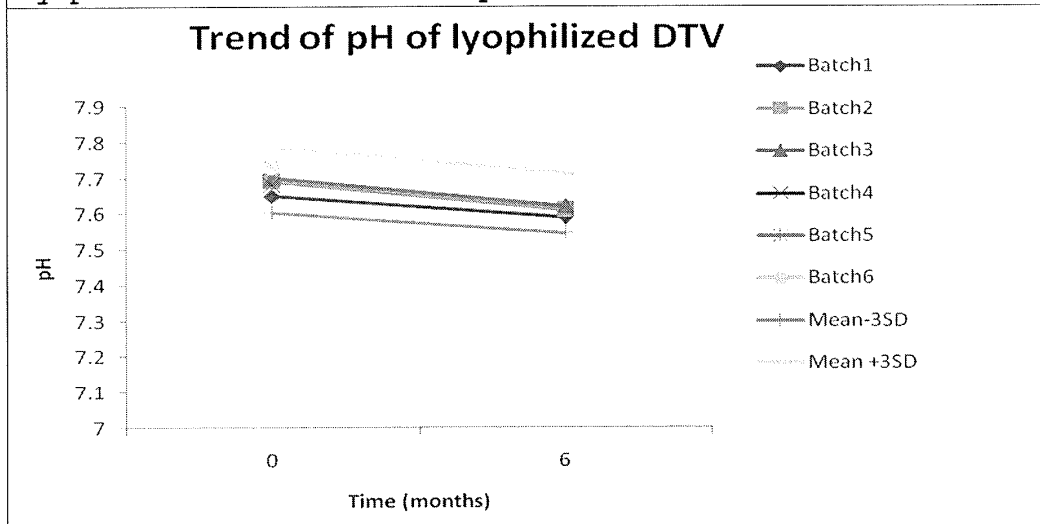


Figure 22: Dengue Tetraivalent vaccine Residual Moisture data post lyophilization at  $25^{\circ}\text{C} \pm 2^{\circ}\text{C}$  upto 6 months

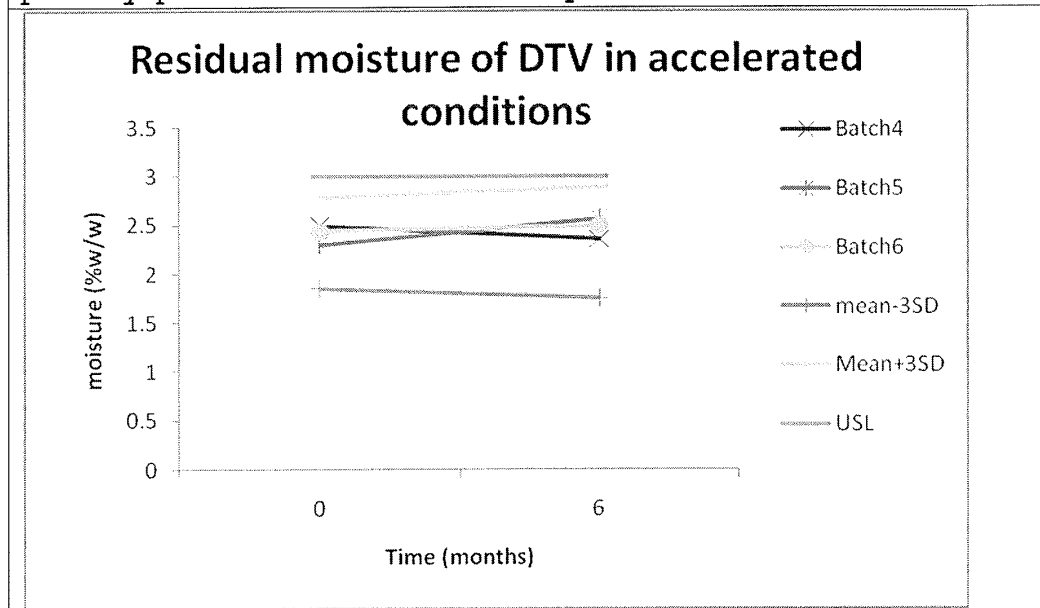


Figure 23: Dengue Tetraivalent Vaccine Stability data at  $37^{\circ}\text{C} \pm 1^{\circ}\text{C}$  upto 7 days post lyophilization

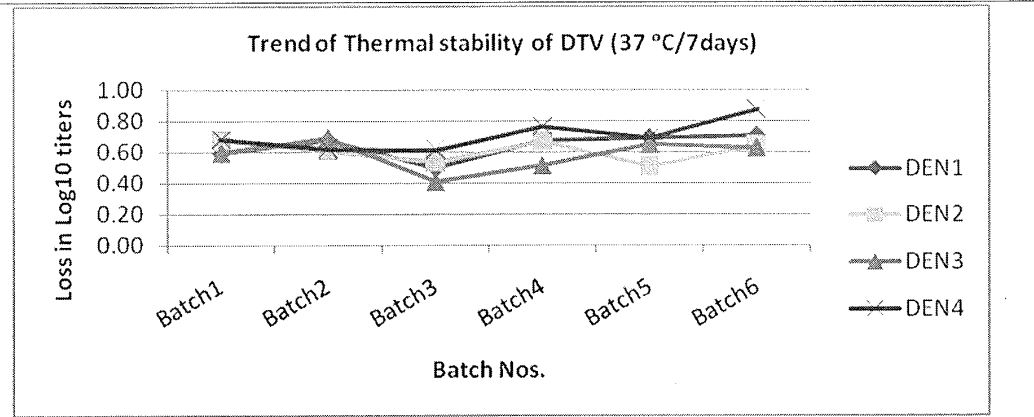


Figure 24: Dengue Tetraivalent Vaccine Stability data at  $42^{\circ}\text{C} \pm 1^{\circ}\text{C}$  upto 7 days post lyophilization

