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## Optimizations of oxytetracycline residues detection method in milk and study of its clinical elimination

Yuan Liu

China Agricultural University, China

Here an improved HPLC-PAD method was developed and validated suitably for the residue detection of oxytetracycline in milk. In our study, 0.1 mol/L Na<sub>2</sub>EDTA - McIlvaine buffer solution was used to extract oxytetracycline from milk, n-hexane for degreasing, and a 3 CC Oasis HLB solid-phase extraction column for purification. A reversed phase chromatographic column Symmetry Shield RP C18 (250 mm×4.6 mm) with acetonitrile and 0.048% phosphoric acid solution (pH 2.5) as mobile phase by gradient eluting was applied to as the chromatographic separation condition. The results showed that the retention time of oxytetracycline was 6.5 min with a symmetrical and sharp peak, which was well separated from the impurity in the milk sample. Oxytetracycline standard solutions within the concentration range of 5 - 2000 µg/kg, had a good linearity between peak areas and the concentrations, with  $R^2 > 0.9999$ . The recoveries of oxytetracycline at three levels of 10, 20, 100 µg/kg were 87.9%, 90.5% and 87.8%, respectively, with the coefficient of variation ranged from 2.2 - 5.8% in the day and 4.0 - 5.1% between the days. The LOD is 5 µg/kg and the LOQ is 10 µg/kg, which was sensitive enough for residue detection. In conclusion, a simple and reliable method for detection of oxytetracycline in milk was developed and validated. Additionally, the validated method was rapid and sensitive as well as provided high recoveries in milk.

[Ding\\_sy@126.com](mailto:Ding_sy@126.com)

## HPLC quantitative analysis of enzymes involve in the action of any bioactive agents on Ebola virus

Bello Hassan Onimisi

Olabisi Onabanjo University, Nigeria

The use of drugs to combat diseases in man has been a practice dated back to creation. In recent years, scientist are beginning to realize the effect of some of these drugs on man. This has prompted a more diversion into natural products especially in Asia and in Africa. Even with this, scientist and orthodox medicine are still having problems in the dosage of this medicine. In recent work that I carried out in Mayer and Baker Laboratory and Faculty of Pharmacy in Olabisi Onabanjo University in Sagamu on certain enzyme (on going work), I have come to understand that the allosteric site of some enzymes can induce chemical substances that have pharmacological activities against some diseases if the appropriate substrate is allowed to bind to it. This has lead me to think that somehow there are enzymes that can be term to be a pharmco-enzymes just like I have also discovered pharmco-transmitters in our other works responsible for healing actions in most diseases. These enzymes would open one gate and would possible dominate biotechnology of the future most especially in nutraceuticals and pharmaceutical industry. Since these enzymes are sensitive, sensitive methods especially HPLC is needed for the analysis.

[hassanbello2001@yahoo.com](mailto:hassanbello2001@yahoo.com)

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