



Thermo

ELECTRON CORPORATION

Potentiometric Titration Application Notes

Applications Log # 646A

Overview The concentration of calcium carbonate and magnesium carbonate in acid relief tablets were determined by the Orion 960 Autotitrator PLUS using the "Sequencing" procedures that linked two first derivative techniques.

Industry	Pharmaceutical
Species Measured	Calcium Carbonate
Sample	Acid Relief Tablets
Sample Size	2 Tablets
Typical Concentration	280-342mg/Tab
Technique	# 9
Electrode	Calcium electrode 932000. D-J Ref Electrode 900200
Solutions	Inner/Outer fill solution 900002, 900003. 0.05M EDTA. Ca-Mg titration reagent 652012
Sample Prep	Determine the average tablet weight. Grind into fine powder. Weigh the equivalent of 2 tabs. Transfer to 100mL beaker. Add 10mL HCl. Sonicate for 10 min. coll transfer to 200mL vol fill w/DI. Pipet 3mL sample to 200mL bkr. Add 20mL Ca-Mg reagent and 50ml DI.

Statistics

# of Trials	3	Mean	327.67mg/tab	%CV	0.93
Analysis Time	3.1minute(s)				
Comments	Rinse the electrodes, stirrer, and dispenser probe between measurements with deionized water.				