



Research - Instrumentation Capabilities

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FluorImagerSI

Used as an optical scanner that detects light emitted from fluorescent samples and produces a digital image



PhosphorImagerSI

Used for reliable, sensitive, radioisotopic gel and blot analysis



Wolverine Jet Zone Oven

Impinges hot air jets at velocities up to 100mph to cook, bake, roast food products at faster heating rates than conventional heating. It develops a crust while retaining the moisture inside the product



ZSK-30 Table Top Extruder Model

It is used for visualization studies in an extruder barrel. The measurements are made through the transparent extruder barrel using Laser Doppler Anemometry



Perkin Elmer LS-50B Luminescence Spectrometer

Measures fluorescence, phosphorescence, chemiluminescence and bioluminescence



SPEX Fluorog Luminescence Spectrometer

Measures fluorescence of chromophores in foods and biological materials



Varian E-9 Electron Paramagnetic Resonance Spectrometer

Equipped with continuous flow system for study of short-lived radicals.



Varian E-12 Electron Paramagnetic Resonance Spectrometer



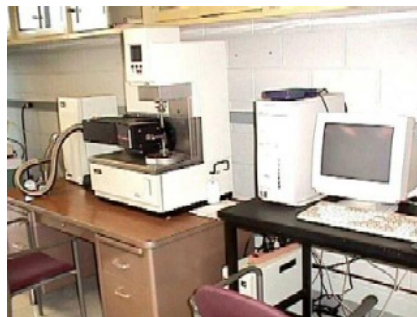
Instron Universal Tester

Assesses mechanical properties of solid foods



Brabender Extensigraph, Chopin Alveograph

These instruments measure uniaxial, biaxial, extensional rheological properties to predict mixing and baking



Advanced Rheometrics Expansion System

Conducts steady shear and small amplitude oscillatory measurements as a function of temperature for relatively viscous systems in temperature range from -150 degrees C to 500 degrees C



GC&LC MassSpec System

Used to identify and to determine the mass molecular weight of volatile or semi-volatile compounds from natural products



Dynatech ELISA Plate Reader
Used for plate readings for immunoassays



Olympus Fluorescence Microscope
Used to analyze GFP (Green Fluorescent Protein) producing bacteria



Greenhouse
Used to study seeds that are infected with Salmonella.



Dynex Mycroplate Reader
Used to study chemical or microbiological reaction kinetics.