a rapid differentiation of Candida species.
One of the author (P. M. S.) acknowledges a scholarship granted by CAPES.

[12/05/10 - P099]
COMPARATIVE ANALYSIS BETWEEM FLUORESCENCE X-RAY AND OPTICAL MINERAL DENSITY IN BONE REPAIR IN RATS, Geraldo Magno Alves de Abreu, Rodrigo de Oliveira, Emília A L Arisawa, Airton A Martin, Ana Maria do Espírito Santo, *Universidade do Vale do Paraíba, Instituto de Pesquisa e Desenvolvimento, IPD/LEVB-UNIVAP-Brasil - Av.Shishima Hifumi, 2911, 12244-000, São José dos Campos, SP* ■ Studies have evaluated the effects of low level laser therapy (LLLT) associated with pharmacotherapy in the promotion of osteogenesis, as well as the acceleration of this process. The objective of this study was to evaluate the mineral content in the bone repair process by comparing the optical mineral density (mmAl) and mapping by fluorescence X-rays (μ-EDX) in rats with induced osteoporosis. Analysis of the bone healing process have used bone mineral density (BMD) with excellent results. The fluorescence of the dispersive energy spectroscopy X-Ray (μ-EDX) is an analytical method capable qualitatively and semi-quantitatively evaluating irradiated samples with the advantages of being a non-destructive method that quickly identifies, the inorganic elements and analyzes the structure with minimal or no previous preparation. Thus, spectroscopy is shown as a very useful tool for better understanding of the mechanism of bone healing, because it is possible to determine the variation of Ca/P deposited in bone as a function of time. Sixty Wistar rats with osteoporosis, induced by orchiectomy, then after 60 days underwent surgery for a bone defect in the femur. The animals were divided into four groups: control (C) - without treatment, treated with calcitonin (Ca), treated with LLLT (La), and treated with calcitonin and LLLT (CaLa). The groups Ca and CaLa intramuscularly received synthetic salmon calcitonin, 2 IU / kg. The groups La and CaLa underwent laser therapy using a laser diode - GaAlAs, 830 nm, P 10 mW, and 20 J/cm^{-2}. The groups received treatments on alternate days for 21 days, except the control group. The analysis of data obtained from optical densitometry and μ-EDX showed that bone density increases with time. The best result was obtained with the CaLa group, which showed a linear increase in bone mineral density after treatment. This group also had the highest concentrations of calcium and phosphorus obtained by μ-EDX. Comparison between the two techniques were consistent.

[12/05/10 - P100]
Hair streams refraction index determination using optical coherence tomography, Laís Gomes Marcolongo, Ricardo Elgul Samad, Nilson Dias Vieira Jr., Valéria Robles Velasco, Anderson Zanardi de Freitas, *Instituto de Pesquisas Energéticas e Nucleares, IPEN - CNEN/SP* ■ Optical Coherence Tomography (OCT) is an interferometric technique that is of particular importance in the medical field, mainly due to its non invasive characteristic, non ionization radiation and also low price. Because of such characteristics carried by this technology as its high transversal resolution, OCT's uses have been spreading beyond medical applications. OCT with micron resolution allows tiny and delicate structures precise study such as hair stream. Hair streams have about 70 microns in diameter, in such a manner that the cosmetic field can also take advantage of this technology by evaluating physical and optical effects caused in the hair streams by the chemical treatment. The present work uses OCT to determine the medium refraction index of 2 different hair groups, blond and Caucasian ones, with 30 selected streams in each group. The physical diameters of the samples were measured next to the hair root by means of a diffraction method, and so their optical path by means of the OCT technique, so that the refraction index could be obtained. To validate the method, a BK-7 glass sample with known thickness was measured with OCT and then its refraction index was calculated and compared with the theoretical value showing accordant results.

[12/05/10 - P101]
AC Biosusceptometry with magnetoresistor to evaluate the gastrointestinal motility, Fabiano C. Paixão, , Caio C. Quini, Madileine F. Américo, Paulo R. Fonseca, José Ricardo A. Miranda, *IBB-UNESP* ■ The motor activity of the gastrointestinal tract (GIT) posses an important role in motility study. Many methods are used to evaluate the mechanical activity of the gastrointestinal tract. However, those methods are invasive, or involve radiation. The biomagnetic methods constitute an interesting alternative for the study of the motility of GIT for they are potentially non-invasive, free from radiation and safe. The sensor ones more important for that purpose they are the coil induction, Hall effect sensor, fluxgate, Superconducting Quantum Interference Device (SQUID) and the anisotropic magnetoresistive sensors (AMR). The AC biosusceptometry (ACB) has been introduced and validated as a standard method for studies of the motility of GIT. However, it lacks space resolution. The magnetoresistive sensors have been used in different studies on the pharmaceutical area and in applications on gastroenterology monitoring magnetic markers in GIT, but those studies use previously magnetized markers detecting the remnant field or they measure the variation of the position of a permanent magnet. The association between AMR and ACB to evaluate the motility of TGI has a number of advantages that were not explored yet. The objective of this work was to build an equipment with a head office of magnetoresistive sensors (36) associating the convenience of the magnetic excitation (ACB) with the advantages of the AMR sensor to acquire magnetic images of different phantoms and to evaluate the gastric motor activity in rat. Measures using magnetic phantoms demonstrate that, through this instrumentation was possible to obtain images with low resolution of different phantoms. Using this technique was possible to acquire signals of the gastric contraction activity in rats, with frequency of 70 mHz. This instrumentation