APPENDIX - R: LEAD TERM ENTRIES WITH CROSS REFERENCES
AGING RESISTANCE = UZONE RESISTANCE
AIR (WITH) CATALYST METAL SALTS / OXIDATION (BY) CATALYST METAL SALTS / OXIDATION (BY) AIR (WITH)
CHEMICAL PROPERTY A003
DECORATION (BY) SCREEN PRINTING A010
DETERMINATION (USING) SPECTRO PHOTOGRAPHY A004
DRUM / PRESERVATION (USING) DRY SALT (IN)
DRY SALT (IN) DRUM / PRESERVATION (USING)
EFFECTIVENESS A004
EVALUATION (USING) MICROSCOPIC ANALYSIS A004
FINISHING A010
HIDE A003
HIDE AND SKIN A003, A004, A008
HYDROPHOBICITY (INFLUENCED BY) ORGANO SILICON COMPOUNDS A003
LEATHER A002- A003, A006- A007, A000- A010
LEATHER CHEMICALS AND AUXILIARIES A005
LEATHER PROPERTY = LEATHER (E) + PROPERTY (P)
LEATHER TECHNOLOGY A001- A010
MECHANICAL PROPERTY (INFLUENCED BY) TAMING A002
METAL SALTS / OXIDATION (BY) AIR (WITH) CATALYST MCTt-L SALTS / OXIDATION (BY) AIR (WITH)
MICROSCOPIC ANALYSIS / EVALUATION (USING) A004
ORGANO SILICON COMPOUNDS / HYDROPHOBICITY (INFLUENCED BY) OXIDATION (BY) AIR (WITH) CATALYST METAL SALTS
OZONE RESISTANCE (INFLUENCED BY) TANNING
PHOTOMETRY - SPECTROPHOTOMETRY / DETERMINATION (USING)
PHYSICAL PROPERTY
A002
Pig Skin
A001
PRESERVATION
AC004
PRESERVATION (USING) DRY SALT (IN) DRUM
A001
PRINTING / SCREEN PRINTING / DECORATION (BY)
PROPERTY
A002, A003, A006, A007
PROTEIN
A008
PROTEIN CONTENT
AC005
RESIN / PETANNING (INFLUENCED BY)
RETANNING (INFLUENCED BY) RESIN
AC00
SALT (IN) DRUM / PRESERVATION (USING) DRY
SCREEN PRINTING / DECORATION (BY)
SILICON COMPOUNDS / HYDROPHOBICITY (INFLUENCED BY) ORGANIC
SKIN
A001, A006
SOAKING MATERIAL
AC00
SOAK LIQUID
A005
SOLE LEATHER
AC002
SPECTROPHOTOMETRY / DETERMINATION (USING)
TANNED LEATHER
AC009
TANNING / MECHANICAL PROPERTY (INFLUENCED BY)
The experimental data on mass density for male Tibia (middle part) at 90° scattering angle for 14 specimens vary from 1.46677 to 1.5586 g/cm³. The true mass density determined by Archimedes' principle for same tibia (14) specimens vary from 1.4340 to 1.5476 g/cm³ with age. The agreement between Compton density and true density (Archimedes' principle) is excellent.

The experimental results of mass density for female tibia (middle part) at 90° vary from 1.4069 to 1.5576 g/cm³ and increase with age. The density of tibia specimens determined from Archimedes' principle are 1.3884 to 1.4957 g/cm³. The values of Compton density agree with density values obtained by Archimedes' principle.

Similarly, mass density values of male tibia determined from top end of each specimen are lower than those of middle part. The values of mass density for lower end are lower than the top end and middle part of each specimen. This shows that the lower end of tibia is more spongy in nature than top end.

The values of electron density for male tibia for middle, top and lower ends are 4.7420 to 5.0402 x 10^{23} electrons/cm³, 4.6133 to 4.8307 x 10^{23} electron/cm³ and 4.6356 to 4.7789 x 10^{23} electrons/cm³. Whereas the values of electron density for female tibia (middle, top and lower
The experimental data on mass density for femur are higher than those of humerus and tibia, showing that femur specimens are hard bones of the body. The values of mass density for male femur (middle, top, and lower ends) vary from 1.6312 to 1.6846 g/cm³, 1.5648 to 1.6047 g/cm³, and 1.5558 to 1.6356 g/cm³, respectively. The electron densities for male femur for middle, top, and lower ends vary from 5.2166 to 5.4479 \times 10^{23} \text{ electrons/cm}^3, 5.1033 to 5.1893 \times 10^{23} \text{ electrons/cm}^3, and 5.0312 to 5.2892 \times 10^{23} \text{ electrons/cm}^3. These values are higher than those of humerus and tibia.

Several conclusions may be drawn on the basis of these experimental data on electron densities of humerus, tibia, and femur. These results demonstrate that the relative electron density as measured using Compton scattering method are strongly influenced by the density, diameter of the sample, and the part for which the electron density is measured. This is obvious from our results that the electron densities are higher for middle part (shaft) of the given cadaver compared to top and lower ends of the sample. The electron...
density is age dependent

The electron densities of femur are higher than those of humerus and tibia, showing that femur are hardest bones of the body. The values of electron density for middle part (shaft) are higher, showing that the middle part is compact. The fact that the electron densities for trabecular (top and lower ends) bone are lower than compact bone shows that the changes occur sooner than in compact bone. Good reproducibility of the results indicate that the density values obtained by the Compton scattering technique are independent of sample orientation. Further investigations are in progress to exploit this technique to understand complex structure of tissues.