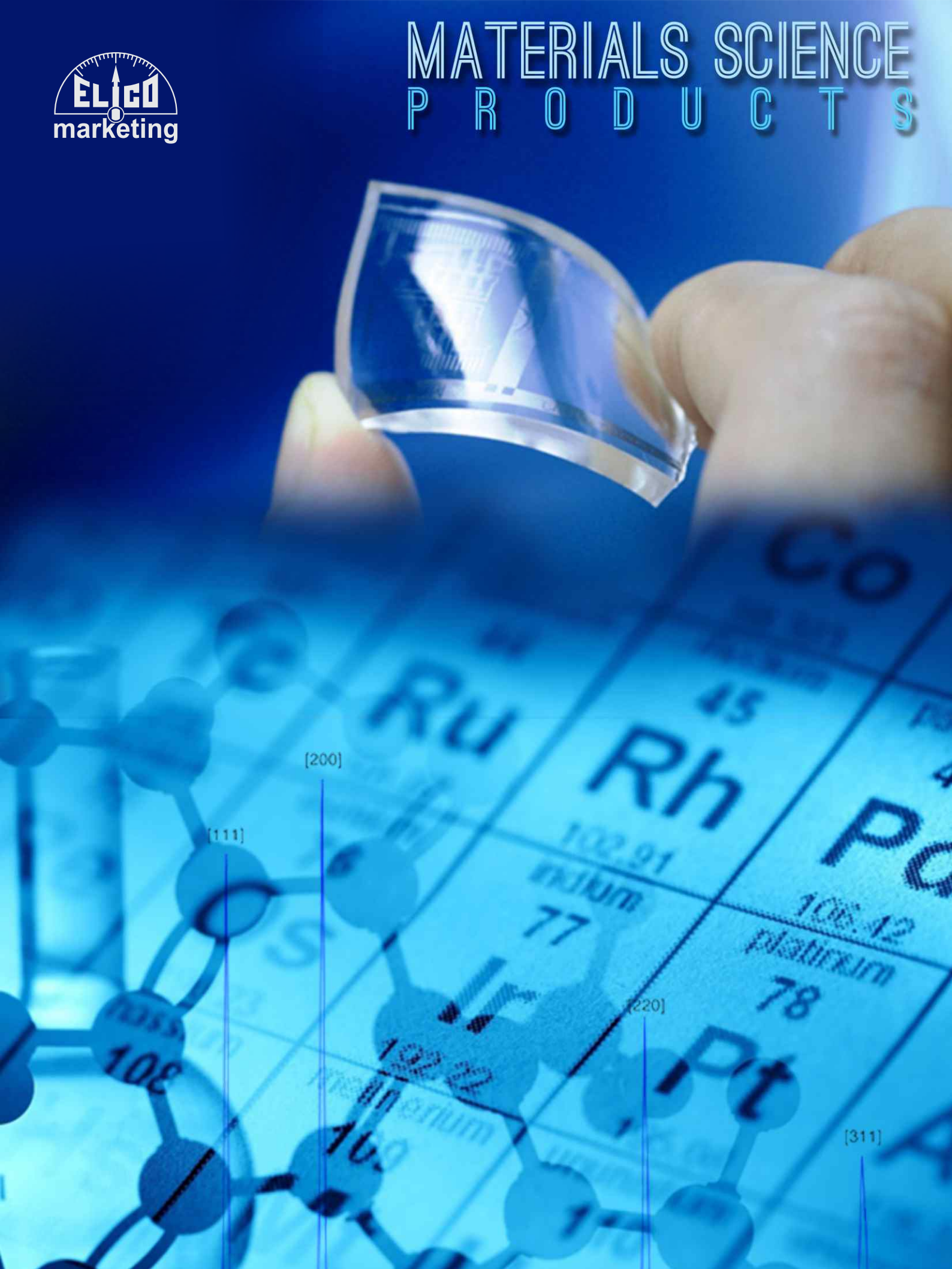
ELIGO marketing

MATERIALS SCIENCE PRODUCTS



AXRD BENCHTOP POWDER DIFFRACTOMETER

- Maximum usable angular range: -4...154^0 2Θ
- Scanning speed: 0.0001^0 ~ 100^0 / min (2 Θ)
- Accuracy ± 0.02^0, Achievable peak width < 0.05^0
- Automated tube warm up, tube ramping
- X-RAY TUBE Patented “easy clean” filter system
- Choice of Detectors
- Radiation protection as per ANSI N43.2
- Safety circuit to protect x-ray tube from over heat, low water flow, x-ray tube arcing
- Applications: Research & Industrial

iXRD RESIDUAL STRESS ANALYZER

- ANSI N43.2, ASTM E915, ASTM E2860, EN15305, and JSMS-SD-10-05
- A proven performer in the field, laboratory and shop floor
- World’s smallest and portable stress analyzer
- Non-contact and Non-destructive, Wide choice of X-Ray tubes, Goniometers & stands
- Windows based software for data analysis - Good spatial resolution
- Automated Stress Mapping , Stress Vs Depth Mapping
- Retained Austenite measurement - Electro polisher for depth measurements
- Applications: Aero structures, Automotive, Turbine Engines, Railways, Pipelines, Bridges, Welds , Failure analysis

LXRD RESIDUAL STRESS ANALYZER

- ASTM E915 accuracy in a low maintenance design
- A laboratory and factory floor star performer
- LXRD designed for heavy duty around-the-clock operation
- The fastest full size Non-Destructive residual stress measurement system
- Provides unsurpassed measurement, repeatability and speed.
- Measurements can be performed in as little as a minute.
- Stress analysis such as: linear and elliptical regression, Dolle-Hauk, and triaxial methods.
- Applications: Aero structures, Automotive, Steel, Ceramics, Turbine Engines, Railways,Pipelines, Bridges, Welds , Failure analysis

ULTRA PORTABLE RESIDUAL STRESS MEASUREMENT SYSTEM

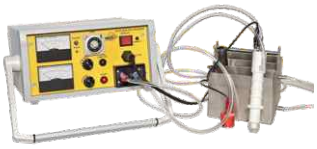
- Collect data from both positive and negative psi tilts to ensure correct shear stress evaluation
- 40 watt Cr x-ray tube ideal for use on steel and aluminum samples
- Built-in automated sample focusing
- Convenient carrying case
- Informative instrument panel
- Highly accurate and fast results

LAUE-HT SINGLE CRYSTAL ORIENTATION MEASUREMENT SYSTEM

- High-throughput single crystal turbine blade orientation & Inspection
- Measurements can be performed in as little as a few seconds
- Designed for heavy duty “round the clock” operation.
- Live Image mode for real-time viewing of Laue patterns.
- 001, 011 & 111 overlays for manual matching of Laue patterns.
- Mounting Jigs, Laser Focusing System, Motorized Sample Positioning System
- Orientation detection limit ± 0.1º
- gamma, delta, theta, alpha, R-values, kappa, rho, omega.
- Radiation protection as per ANSI N43.2
- Applications: Turbine Blade Orientation Inspection

LAUE-COS SINGLE CRYSTAL ORIENTATION SYSTEM

- Small crystal orientation system.
- Measurements can be performed in as little as a few seconds
- True BACK REFLECTION CAMERA Low noise, high dynamic range
- cooled sensor technology for sharp Laue images.
- Live Image mode for real-time viewing of Laue patterns.
- 3-AXIS GONIOMETER for mounting of samples for crystal cutting.
- 001, 011 & 111 overlays for manual matching of Laue patterns.
- Designed for research labs and production environments
- Comprehensive set of tools for analyzing patterns, indexing and reorienting crystals.
- Radiation protection as per ANSI N43.2
- Applications: Small crystal Orientation Inspection



PORTABLE ELECTROLYTIC POLISHER

- Light weight, compact, rugged industrial design
- Great for both residuals stress vs. depth characterization & metallurgical prep
- Dual mode operation etching / polishing
- Precision timer (up to 300 hours) with multiple ranges for sec, min, hours
- Automatic pump and electrode power off after polish, End of polish buzzer
- Dual range analog current and voltage meter
- Adjustable electronic flow control

RFDA MF PROFESSIONAL

- Measures Resonant frequency, Internal friction (=damping)
  Young's modulus, Shear modulus, Poisson ratio
- Atmosphere : Air
- Temperature profile : Room Temperature
- Min sample size : Rectangular bar or cylindrical rod with a length of ±2 cm
  Disc with a diameter of ±3 cm
- Max sample size : Undefined
- Applications : Steel, Ceramics, Refractories, Cast Iron, Coatings, Porous Materials

RFDA MF HT SERIES

- Measures Resonant frequency, Internal friction (=damping),
  Young's modulus, Shear modulus, Poisson ratio
- Atmosphere : Air (optional: with gas flow)
- Temperature profile : RT to 650°C, 1600°C and 1750°C
- Min sample size : Rectangular bar or cylindrical rod with a length of ±3 cm,
  Disc with a diameter of ±4 cm
- Max sample size: Rectangular bar or cylindrical rod with a length of ±15 cm,
- Disc with a diameter of ±15 cm
- Applications : Steel, Ceramics, Refractories, Cast Iron, Coatings, Porous Materials

RFDA HTVP 1600

- Measures Resonant frequency, Internal friction (=damping),
  Young's modulus, Shear modulus, Poisson ratio
- Atmosphere : Air or inert Gas
- Temperature profile : Room Temperature to 1600°C
- Min sample size : Rectangular bar or cylindrical rod with a length of ±3 cm,
  Disc with a diameter of ±4 cm
- Max sample size: Rectangular bar or cylindrical rod with a length of ±16 cm,
  Disc with a diameter of ±16 cm
- Applications : Steel, Ceramics, Refractories, Cast Iron, Coatings, Porous Materials

RFDA MF LTVP 800

- Measures Resonant frequency, Internal friction (=damping),
  Young's modulus, Shear modulus, Poisson ratio
- Atmosphere : Vacuum (10-6 mbar)
- Temperature profile : -100°C to 800°C with infrared Heating Element
- Min sample size : Rectangular bar or cylindrical rod with a length of ±3 cm,
  Disc with a diameter of ±4 cm
- Max sample size: Rectangular bar or cylindrical rod with a length of ±12 cm,
  Disc with a diameter of ±12 cm
- Applications : Steel, Ceramics, Refractories, Cast Iron, Coatings, Porous Materials

RFDA MF HTVP1750C

- Measures Resonant frequency, Internal friction (=damping),
  Young's modulus, Shear modulus, Poisson ratio
- Atmosphere : Inert or Vacuum (10-3 mbar)
- Temperature profile : RT to 1750°C With Graphite Heating Element
- Min sample size : Rectangular bar or cylindrical rod with a length of ±3 cm,
  Disc with a diameter of ±4 cm
- Max sample size: Rectangular bar or cylindrical rod with a length of ±12 cm,
  Disc with a diameter of ±12 cm
- Applications: Steel, Ceramics, Refractories, Cast Iron, Coatings, Porous Materials

MEASUREMENT SERVICES

SERVICES OFFERED

- Residual Stress Analysis by X-Ray Diffraction
- Electropolishing for Stress Vs Depth Analysis
- Material Characterization

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HUBER
Diffraction and Positioning Equipment

HUBER FOUR CIRCLE GONIOMETER

- Can be used both for X-ray as well as for Neutron applications
- Tube Hood and Monochromator for X-ray applications
- Plane Detector for Neutron applications
- High Precision components
- Customization to specific requirements

HUBER SIX CIRCLE DIFFRACTOMETER

- Four circle Diffractometer consisting 424 and 512.51
- Offers wide variety of possible applications ranging from residual stress and textural measurements to thin film analysis and wafer investigations
- Integrated XYZ adjustment in Phi circle
- Power supply via jumper rings

HUBER PRECISION SAMPLE POSITIONING STAGES

- High Precision Stages for X-Ray, Neutron and Beamline applications
- Rotation Stages, Linear Stages, Z Stages, X-Y Stages
- Eulerian cradles
- One Circle and Two circle segments
- Goniometer Heads
- Slit Screens, Cross Slit Screens
- Motorized and Manual versions
- Encoders, Limit Switches, Gear Boxes, Adapter plates
- Stepper Motors
- Stepper Motor Controllers
- Capillary Buoy, Capillary Heater
- All stages are Modular and can be combined for different applications

Film Sense™

FS-1 MULTI WAVELENGTH ELLIPSOMETER

- Multiple LED sources: Blue, Green, Yellow, and Red
- No moving parts in the ellipsometric detector
- Excellent thickness precision, better than 0.001 nm
- Integrated computer for control and data analysis
- Fast measurement times (banded wavelength data in 10 ms) and term reliability
- No complicated software setup and maintenance
- Web browser interface from any computer or tablet

Vigor

VIGOR GLOVE BOXES

- Single station / Double station Glove boxes
- Clean Room and OPV Glove boxes
- Glove Boxes for lithium and sodium ion battery research
- T-Chamber Glove Boxes
- Battery Research Glove Boxes
- Furnace Welding Glove boxes
- Patented sealing technology
- Lowest leakage rate
- Highest purification efficiency
- Lowest circulation time
- User friendly interface
- Wide range to suit your needs
- Thermal chamber & Freezer options
- Special adsorbent bed to remove corrosives
- Variety of electrical feed thru's, custom panels and peripherals
- Range of models and customized designs to suit your requirement

CERAMIC TAPE CASTER

- High accuracy granite casting surface
- Casting on mylar film – easy process upgrade to production model
- Choice of doctor blades
- Temperature controlled drying zones
- Temp. & Humidity control
- Lab, Batch and Continuous Production models available
- Applications: Multi-layer capacitors, PZT's, Fuel Cells, Ceramic Research, Universities, etc.

SEO

CONTACT ANGLE ANALYZER

- Sessile Drop & Pendent Drop method (Automatic & Manual)
- High speed dynamic image capture
- Surface Tension & Static/Dynamic Contact Angle
- Contact Angle Range : 0 to 180°; ±0.1° accuracy
- Calculation of surface energy and work of adhesion
- Single or Multiple sample dosing systems
- Software controlled crop volume control upto 0.1 micro litre
- Software controlled entire titling
- Applications: Polymer surfaces, Powders, Pharmaceuticals, Coatings, Electronic component, Semiconductor, Biological, etc.
- Wide Range or Semi-Automatic and automatic models suit your applications and budget

PICO DROP SHAPE ANALYSER

- Nano Dispensing System : Piezo-electric controlled drop by software
- Optics : One or two high resolution Zoom lens & CCD camera
- Light Source: High intensity LED with low thermal radiation.
- Sample Stage : X- , Y- Axis control by Automatic or manual.
- Drop Size : Up to 50 picoliters
- Capture Individual images , sequences & Surface energy calculations
- Applications: System optimized for extremely small samples such as hair, fiber, textile or biological application

PHOENIX-MULTI THREE SYRINGE CONTACT ANGLE ANALYZER

- Automatic and rapid sample analysis and high speed imaging
- User friendly Surface Energy Calculator function with three syringe system
- Fully automatic / independent control of each syringe and drop volume by software
- Smart capture for super hydrophilic material
- Automatic Head module movement for touch drop of low volume samples
- Automatic and Manual image analysis

DCA 200 DYNAMIC CONTACT ANGLE ANALYZER

- Dynamic Contact Angle of General Solid Materials
- Dynamic Contact Angle of powders, Washburn methods
- Surface Tension Measurement to ASTM/DIN/ISO DuNouy Ring / Wilhelmy plate
- Interfacial Tension Measurement
- Surface Energies Measurement
- Surfactant studies (CMC) with optional accessory

SURFACE AND INTERFACIAL TENSIOMETER

- ASTM D971, IEC and ISO methods
- Du Nouy ring, Wilhelmy plate methods
- Automatic and manual lift system
- Measuring Range : 0 to 1000 dynes
- Adjustable temp: -10 °C to 100 °C
- Ergonomic, user friendly design
- Manual & Automatic Models available
- Applications: Paint, Ink, Oils, Fuels, etc.

THERMOGRAVIMETRIC ANALYZER

- ASTM D5142-90
- Simultaneously evaluates moisture, ash & volatiles content of up to 29 samples in one cycle without desiccator up to 1000 ^{0}C
- Fully automatic thermo gravimetrical analysis
- High performance ceramic crucibles and turn table.
- Selectable atmosphere (N_2, O_2) exhaust option
- Available in three different models: 12, 19 and 29 samples per cycle
- Application includes Coal, Coke, Cement, Fertilizer, Food, Pharma, etc.

SITA

DYNOTESTER SURFACE TENSIOMETER

- World's first mobile Tensiometer - Dynamic Surface Tension of liquids
- Bubble Pressure Method
- No external air pump necessary
- Measuring range: 15 ... 100 mN/m ; Resolution: 0.1 mN/m
- Measuring temperature range: 0 ... 100 "C
- Adjustable range of the bubble lifetime: 15 ... 15000 ms
- 25 storage positions; USB interface for Data transfer & administration
- Applications: Surfactants, detergents, inks, and more
- Also Available high end models t15 and t100 for research applications

R-2000 SITA FOAM TESTER

- Fully automated testing, cleaning,and refilling,
- Patented rotor system for Reproducible foam generation
- Adjustable settings for rotor-rpm, generating time & sample temp.
- Control and data analysis with Windows Software
- Measured value: foam volume in ml, resolution 10 ml
- Temperature controlled by an external unit in the range of 0°C to 80°C
- Applications: Detergents, Shampoos, Toothpastes and more

CLEANO SPECTOR SURFACE CLEANLINESSTESTER

- Contact- and contamination-free cleanliness inspection of metal surfaces
- Fluorescence Method
- Measurement at different temperatures without any influences
- Simple calibration on clean metal surfaces
- Mobile device for flexible use in processes or in laboratories
- Automatic calibration on clean metal surfaces

CON SPECTOR BATH CONTAMINATION TESTER

- Contamination Level in Cleaning & Rinsing Processes
- Objective evaluation of bath contamination
- Cleaning process efficiency by optimizing bath lifetime
- Handy & Easy to operate
- Measuring results in seconds
- Direct measurement in Lab or in Process

ELICO marketing

Elico Marketing Pvt. Ltd.
57, Phase-V, KPHB, Kukatpally, Hyderabad - 500 085. Telangana, India.
Tel: +91-40-2315 3388, Fax : +91-40-2315 7722,

Email : info@elicomarketing.com
Web: www.elicomarketing.com