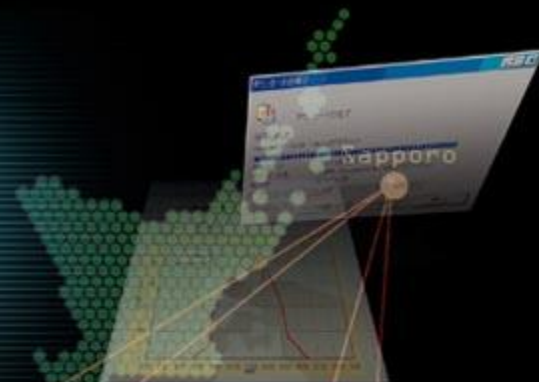


EKO

Company Profile

Jan, 2011



EKO INSTRUMENTS Co., Ltd.



**Cutting edge
technology
since 1927.**



Pyranometer



Pyranometer



Pyranometer



First Data Logger

What is EKO

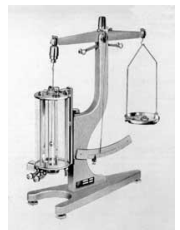
EKO INSTRUMENTS Co., Ltd.

History / Milestones

- 1927 Founded by Hiroshi Tosawa (imported scientific instruments from Europe).
- 1935 Opening first factory in Osaka.
- 1955 Development and manufacturing of first glass-dome pyranometer in Japan
- 1956 Became exclusive representative of HAAKE Germany.
- 1958 Moved factory to Tokyo.
- 1985 Development of measuring system for PV energy production modules.
- 1990 Development of instrumentation to measure harmful UV-B radiation.
- 1997 **ISO 9001** certified by Quality Management Systems, Japan. (IQ Net)
Mr. Hasegawa succeeded Managing Director / President
Development of new spectroradiometer
- 1998 Received ASOS/NOAA order to supply MS-092 Sunshine Duration Meter.
- 2003 Development of Lidar System to measure temperature / humidity / aerosol
Profile up to 5 km.
Opening EKO TC/CS Center.
- 2004 Received Tokyo Governor's Awards at Tokyo Invention and Innovation Exhibition for EKO Multi Lidar.
- 2005 **Establishment of EKO Instruments (USA) Inc. (Arizona, USA)**
Received order to supply MS-093 Sunshine Duration Meter to AMeDAS
- 2006 **ISO 14001** certified (Environment Management Systems).
- 2008 **Establishment of EKO Instruments Europe B.V. (Den Haag, The Netherlands)**
- 2010 **Moved EKO Instruments USA Inc. to San Jose, CA**



Mr.Tosawa



EKO's Philosophy

➤ **Customers & Products**

Our customers benefit from sophisticated instruments and innovative services that persistently improve and optimize the efficiency and quality of their products.

➤ **Communication & Social Responsibility**

- Maintain distinctive and informative communication with our customers, EKO's staff and our suppliers.
- Respect CSR (Corporate Social Responsibility) policy.

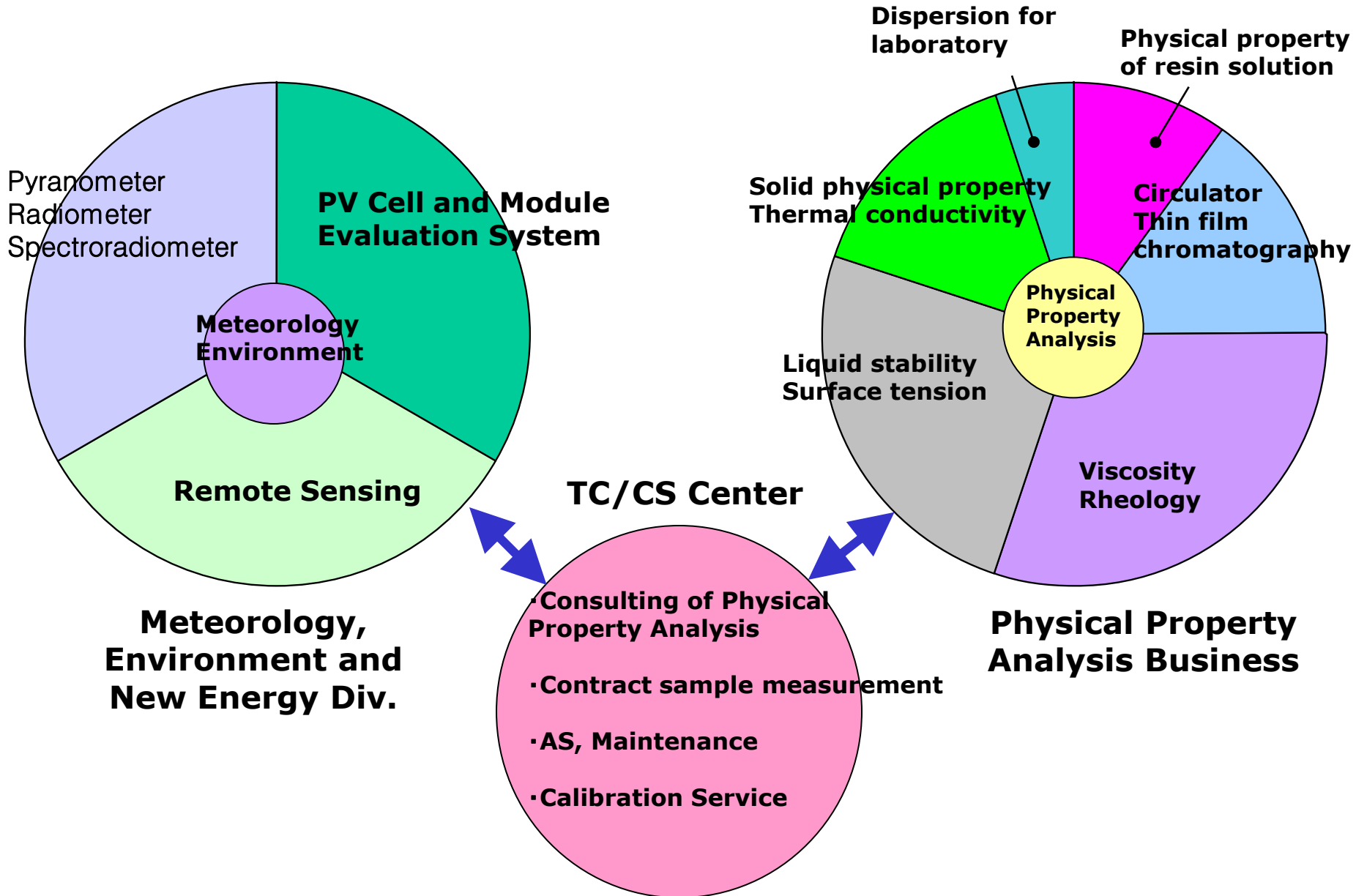
➤ **Education & Learning**

- Provide suitable trainings to staff and customer in order to explore their resources and improve products.
- Keep learning how to be more productive, more innovative, and critical minded.

Do your best to become the best, but keep having fun!

Business fields

EKO INSTRUMENTS Co., Ltd.



Meteorology, Environment and New Energy Division (Product Lines)

EKO INSTRUMENTS Co., Ltd.

PV Cell and Module Evaluation System



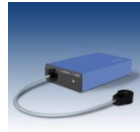
IV Curve Tracer



Portable IV Checker



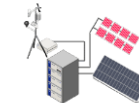
Solar Simulator



Grating Spectroradiometer



Electron lifetime and diffusion measurement system



Outdoor Evaluation System



Indoor Evaluation System

Radiation and Photonics Sensors



Pyranometer



UV Radiometer



Pyrgometer



Sun Tracker



Pyrheliometer



Sky Scanner



Sunshine Duration Meter

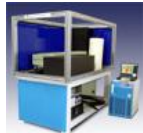


Spectroradiometer



Portable Spectroradiometer

Remote Sensing



Lidar System



Scintillometer



Flat Array Sodar



Micro Rain Rader

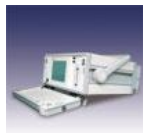


Radio Acoustic Sounding System



Meteorological Temperature Profiler

Atmospheric Environment



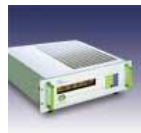
Dual Co₂ /H₂O Gas Analyzer



Portable Leaf Area Meter



Portable Photosynthesis System



Nox Analyzer

Available in Europe

Available in Asian Area only

Also available in the USA?

Material Characterization and Analysis Division (Product Lines)

EKO INSTRUMENTS Co., Ltd.

Material Characterization



**Rheometer
MARS II**
Thermo Electron



**Torque
Rheometer**
Thermo Electron



Minilab
Thermo Electron



Minijet
Thermo Electron



Texture Analyzer
SMS



**Shelf Life and
Stability
Analyzer**
Formulation



Tensionmeter
SITA t60



Bio Profiler
VILASTIC



**Contact Angle
Tensionmeter**
Dataphysics



**Dispermat
VMA-Getzmann**



Twin Capillary
CEAST



**Thermal
Conductivity
Tester**



**Thermal
Conductivity
Tester**

Analysis



Circulator
Thermo Electron



Balance
Thermo Electron



TLC
CAMAG



Cell Disrupture
Constant Systems



Powder Analyzer
Bran Scan

Available in Asian Area only USA?)

Unit

EKO INSTRUMENTS Co., Ltd.

Head Office 2-1-6, Sasazuka, Shibuya-ku,
Tokyo, Japan (Tel: +81-3-5352-2911)

R&D Center 1-21-8, Hatagaya, Shibuya-ku,
TC·CS Center Tokyo, Japan

Kansai Office 3-1-31, Kikawahigashi,
Yodogawa-ku, Osaka-shi Japan

Overseas affiliate

- EKO INSTRUMENTS USA Inc.
- EKO Instruments Europe BV.

Other affiliate

- EKO CORPORATION
- Scintec AG

Employee Number 75 (as of Oct, 2010)



Radiation and Photonics Sensors



Pyranometer



UV Radiometer



Pyrgeometer



Sun Tracker



Pyrheliometer



Sky Scanner



Sunshine
Duration Meter



Spectroradiometer



Portable
Spectroradiometer

To measure the sun's radiative energy, spectral or broad band

- Pyranometer, pyrheliometer: broad-band solar irradiance
- UV radiometer: ultra violet global irradiance
- Pyrgeometer: longwave (terrestrial) radiation
- Sky Scanner: solar radiation distribution
- Sunshine Duration Meter: "how many sun-hours per day"
- Spectroradiometer: solar spectral radiation

Radiation and Photonics Sensors

Applications

- Determination of PV energy ratio
- PV system monitoring
- Solar concentrator input radiant power meas.
- Solar (heat) energy system monitoring
- Climate research
- Material testing (indoor and outdoor)
- Site location determination
- Determination of solar maps
- ...

PV Cell and Module Evaluation Systems



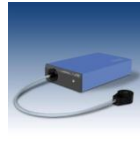
IV Curve Tracer



Portable IV Checker



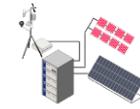
Solar Simulator



Grating Spectroradiometer



Electron lifetime and diffusion measurement system



Outdoor Evaluation System



Indoor Evaluation System

To measure the electrical power of PV cells and modules

- IV curve tracers and checkers: measurement of IV curve
- Solar simulators: indoor sun simulation device
- Grating spectroradiometer: checking sun simulators
- El lifetime meas. system: Dye sensitized solar cell eval.
- Outdoor evaluation system: combination of radiometers and IV curve measurement system
- Indoor evaluation system: combination of sun simulators and IV curve measurement system

PV Cell and Module Evaluation Systems

Applications

- PV cell efficiency measurements
- Maintenance of PV installations
- PV cell performance testing
- PV system monitoring and evaluation
- PV cell research and development

PV monitoring and evaluation systems



System composed of:

- EKO MP-160
- EKO MI-520
- EKO MI-540
- EKO STR-22
- 2 x EKO MS-802
- EKO MS-56
- Divers meteor. dev.



<http://www.eko.co.jp/>