

SAKIGAKE-Semiconductor. Co., Ltd.

About Intellectual Asset-based Management Reports

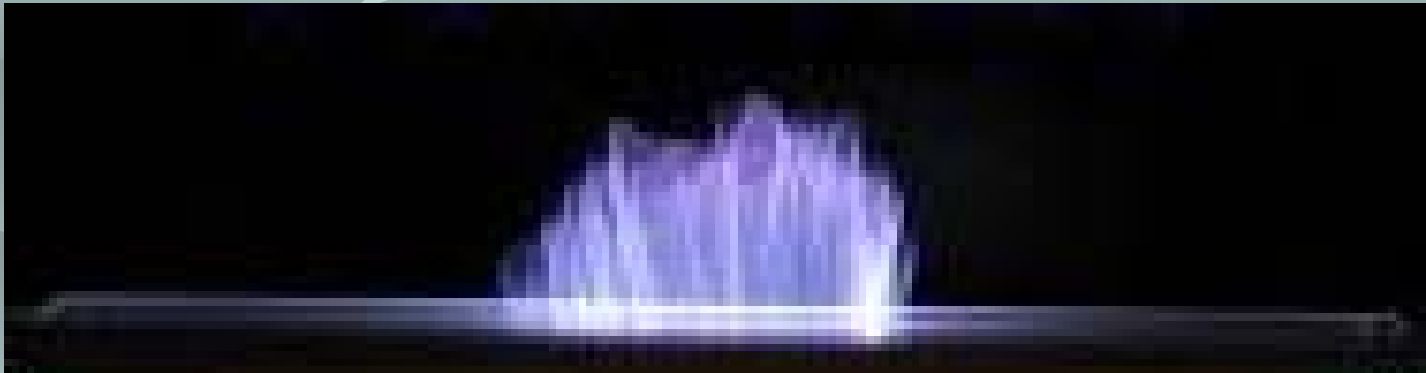


Photo of Plasma

Topics

- Purpose of creating a significant
Intellectual Asset Management Reports
 - Creative ideas
 - Output
 - Kyoto Initiatives
 - Summary
- 

Purpose of creating significant Intellectual Asset Management Reports

Since it is a venture company :

① weak trading performance –

Get creditbility → Administration policy of the company

And, it is necessary to express clearly the advantages of technology and products

② Making clear about our future direction

Towards achieving the goal

- what kind of company → what is company`s goal
- what is our strength → what are the products?
- How to exploit our strength towards making good business → Application examples

Planning and executing the above

About Sakigake-Semiconductor Co. Ltd

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【Main Business contents】

- Design, development and manufacturing of liquid source deposition systems and their sales. surface modification plasma systems
- The development of the equipments on sponsored research basis
- deposition of SiO₂, SiON, SiN_x, SiC, and etching processes
- Semiconductor Process Consultation

【Capital】 \3,000,000- (about€25,000-)

History

2002 Venture Company of Kyoto Institute of Technology
Development of deposition system for SiN growth

- Venture support wear (METI's grant)
- Regional New Consortium (METI's grant)

2006

- Product sale
- Made a first edition about Intellectual Asset Management Report .

2008 Company relocation

2010 Start of Quartz business

Administration policy of the company

Business Steps

Get to know the company(product).



Get Credibility for company (products).



Get order (*^^)v

Administration policy of the company

Stereotypes of Japanese people about Venture Company

1. Get big money



2. Focus on developing



3. Get large money if you succeed in development

But... If you fail...

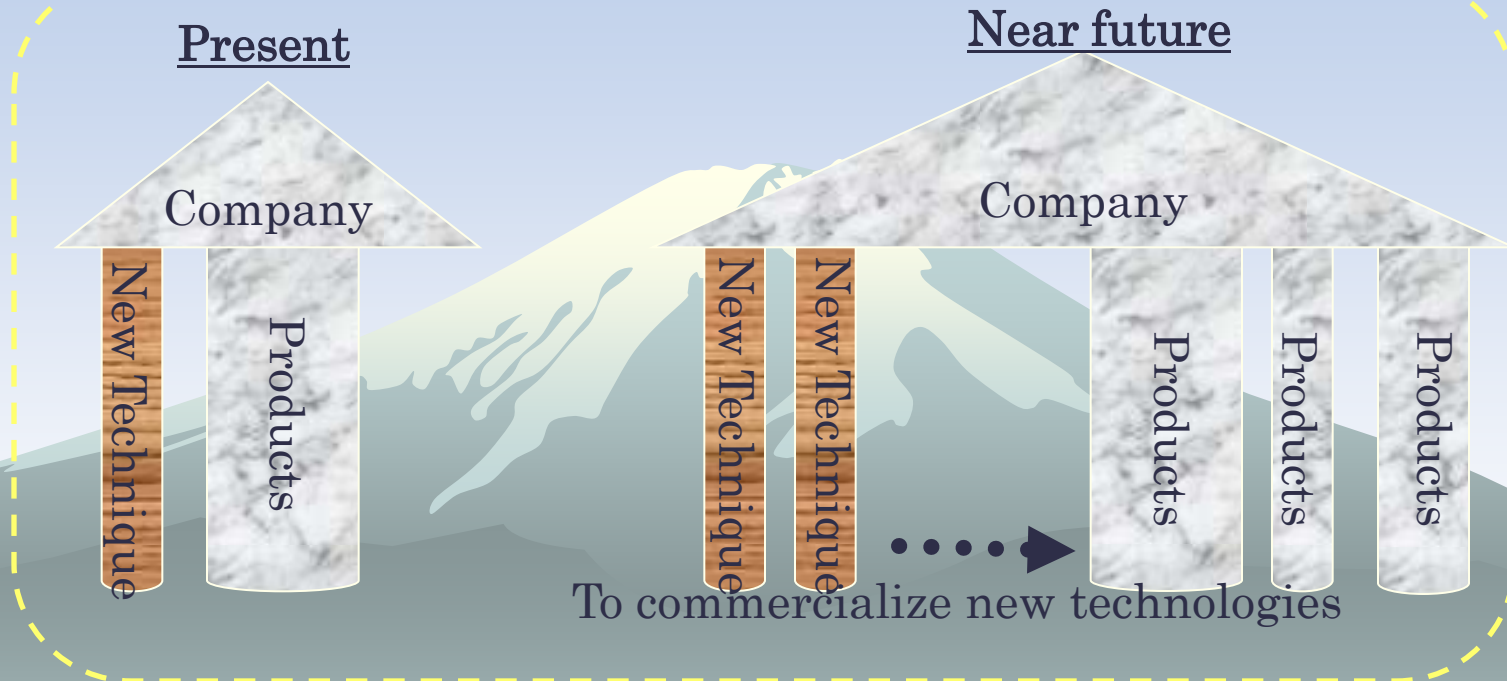
= Gambler = No credit

wrote About company's policy in the first edition of
Intellectual Asset Management Report

Administration policy of SAKIGAKE

Management style of the successful Venture Companies in Japan

like a house image



- Easier Management of the company products sell well

- The products sell well to new technology, to strengthen the management of the company.
- Manufacturing products to improve profitability.

Get credibility by Stable Business Management

▪ Sakigake semiconductor products

Atmospheric Pressure Plasma treatment:

Sample nature: face, powder, tube

indigenous technology not available in textbook

Vacuum plasma

Product development to meet the needs of customers

Quartz Business

Service to raise market liquidity

Creative Ideas

In spite of having the strength for technology, it is necessary to explain it in a simple way.

Also the wide applications of the technology, has to be explained

Furthermore, with a wide variety of experimental methods and applications, usage of common descriptive keywords.

In addition, explanation with KPI (Key Performance Indicator)

to promote understanding towards our potential and our products

Technical presentation in various governments
agencies for grant

Market analysis for understanding Industrial need

Research on technical competence to achieve the goal

Analysing competitors strategy

Based on successful studies, it was possible to get
government funding

Collaborative project with big company

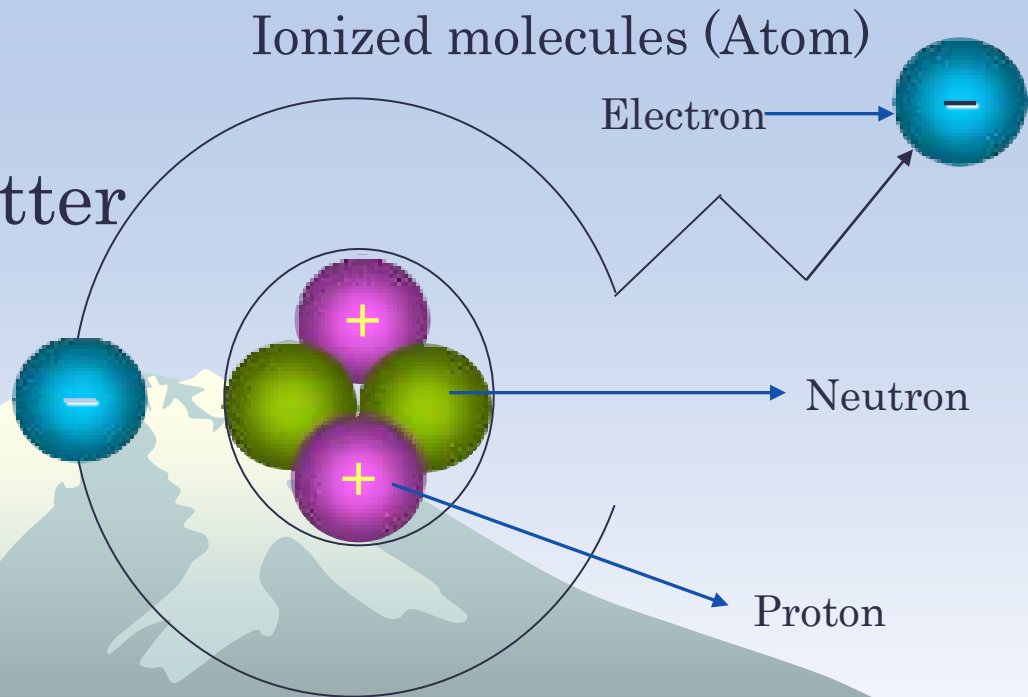
Venture support wear 2003

Regional New Consortium 2004 _ 2005

About Plasma

Fourth state of matter

1. Solid
- ↓
2. Liquid
- ↓
3. Gas
- ↓
4. Plasma



Orbital electrons escape out from the atom/molecules(ionization)

Molecules/atoms that lose electrons become unstable →
 Try to become stable by capturing or combining with
 electrons of other molecules/atoms.

→Plasma is highly reactive Molecules(Atom).

Atmospheric plasma surface treatment equipment



S5000-BM model

Almost no thermal damage.

→Easily vulnerable samples can also be used
(surface treatment at a low temperature such as 40 °C)

No exposure to concentrated Arc at sample surface

→sample surface is exposed to only N₂ plasma
No need of expensive gases such as He and Ar

Easy usage with AC100V outlet

Applicable for samples with any shapes and dimension

Easy maintenance

- cleaning for wire bonding (model S5000-BM)
is applicable for LSI, without making any damage

- Glass cleaning (model S5000)

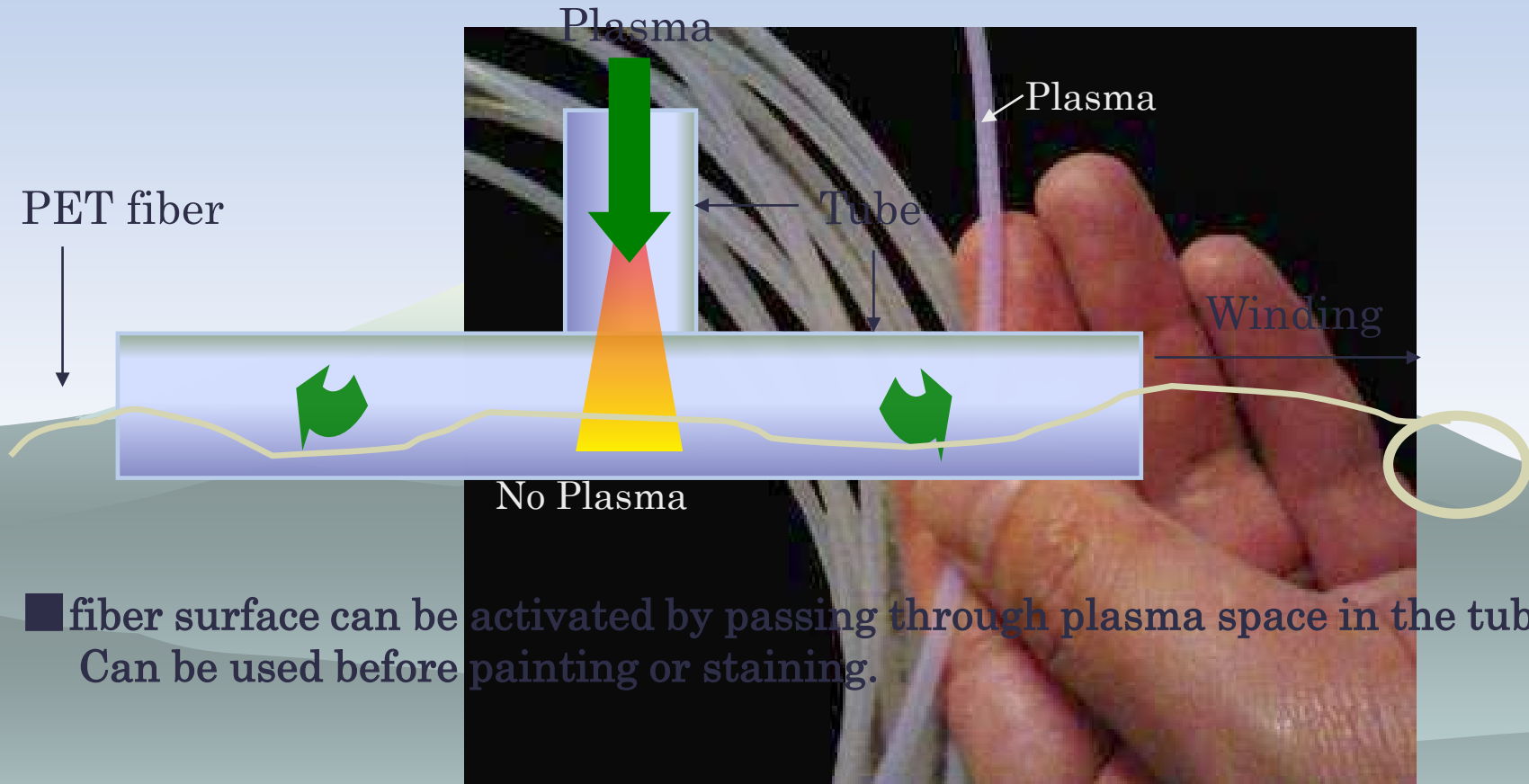
Cleaning of Organic matter on the substrate, for optical glass and electronics production

- Processing of thin metal films

Even without damage to the hydrophilic metal films on insulator (in corona discharge, it is not possible)

Atmospheric plasma (plasma tubes)

Fibre processing equipment



■ fiber surface can be activated by passing through plasma space in the tube,
Can be used before painting or staining.

Processing object: Semiconductors,
insulation tube etc.

plasma processing of Powder



Kansai Front Runner Award Winner 2010

Untreated

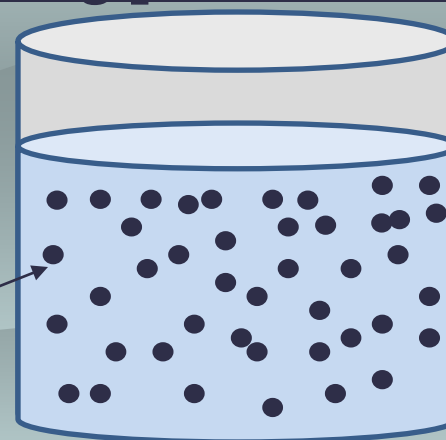
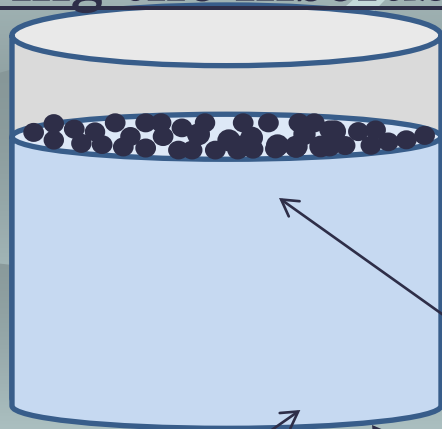
After plasma treatment

Photo



Dissolving the insoluble matter by using plasma treatment

Schemati

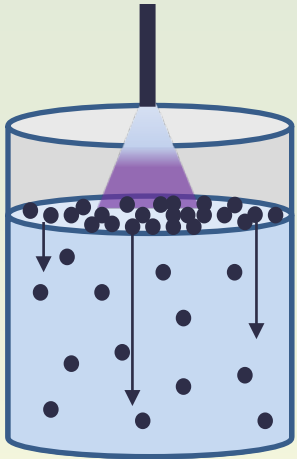


Water

Beaker

Carbon powder

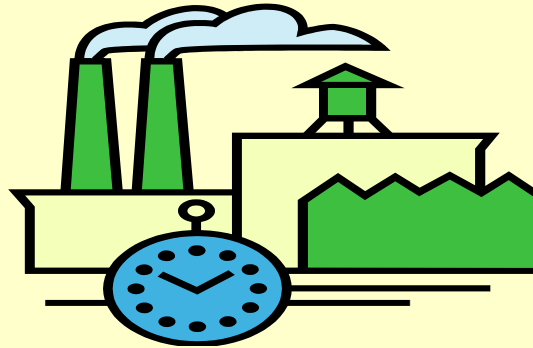
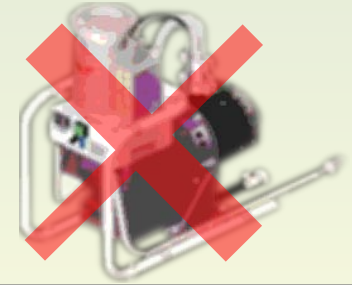
superior characteristic of the powder body plasma processing



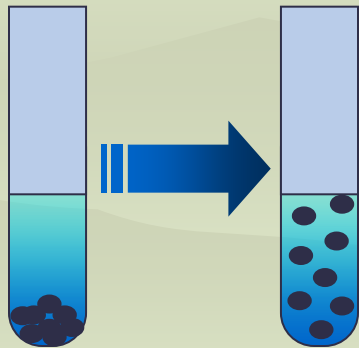
Surface treatment and dispersion at the same time!



No need for vacuum system



Making economical in terms of the process time and the cost



re-dispersion of the sedimented powder is easy!



surfactant is unnecessary!
contribute to environmental problem.

Desk vacuum plasma

Existing plasma system

A lot of unnecessary features and expensive!

YHS-R is to remove unnecessary features for surface modification

Low price!

■ Before the bonding process

Eg.

As preprocessing of the of silicon / silicon and the silicon / glass bonding

Bonding of PDMS and the glass.

■ pre-treatment of laboratory dish used for cell culture.



YHS-R model

Quartz business

quartz characteristic melting point is 1,700 C
and quartz is expensive:

Establishment of network for applying
the optimal material
(in terms of shape, dimension) for production
of various apparatus.

Service as material supplier, consultant

Output of making good business report

As the number of employees would increase, it is ideal to make them understand about the company through business report.

To understand and keep in mind about the original business, while making the new business.

Intellectual Assets Management Report about business of the own company with logical explanation about technology and management, caused good evaluation of the company and resulted in winning award



Kansai Front Runner Award Winner 2010

Kyoto prefectural government initiative

In Kyoto prefecture, Mr. Takafumi Nakamori in Ritsumeikan university (former Kyoto Institute of Technology) works hard toward creating the awareness of making business management reports in small and medium-sized enterprise(SMEs).

In 2008, for the first time in Japan, Kyoto prefectural government and Mr. Nakamori co-operating together, have started the approving system of the business reports of SMEs in Kyoto.

As of April 2010, 23 companies have got such approval
At present our company is taking effort to get this approval

Summary

Since it is a venture company :

- Making clear about company`s future direction
- Making stakeholders understand the company`s profile and its technical contents
- Making a market analysis
- Publicizing about the company`s Business
- Get Credibility

The intellectual assets management report becomes
the compass of the company growth

Thanks

Please remember

Takafumi NAKAMORI

Ritsumeikan University