

## Ferrotec Corporation

Results for the 1<sup>st</sup> half of the fiscal year ended March 31, 2010

November 25, 2009

(JASDAQ 6890)

http://www. ferrotec. co. jp/

1. This 1st half results cover six months period from April to September of Ferrotec, and six months period from Jan. to June of consolidated subsidiaries and affiliated companies included in investment profit loss in equity method.

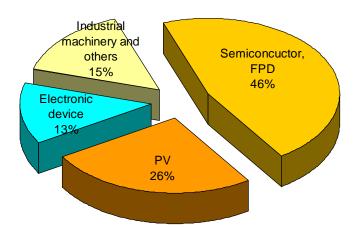
2. These materials were prepared for the purpose of providing information regarding the company's results of operations for the 1<sup>st</sup> half of the fiscal year ending March 31, 2010. These materials were prepared based on information available as of Nov. 25, 2009. All opinions, forecasts and other forward-looking statements are based on management's judgments in accordance with materials available at that time and may be changed without prior notice.

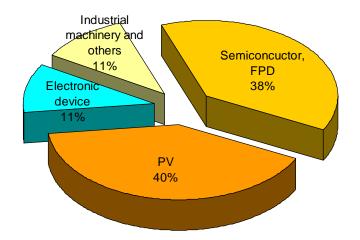
Sales by industry sector

FeroTec

The first half of FY March 2009 Sales 19.5 billion yen The first half of FY March 2010

Sales 13.4 billion yen





# FeroTec

## 1 Electronics industry

Expand sales of current products to include LED manufacturers (target as a new business)

- Pursue outsourcing contracts for vacuum components and sub-assemblies for parts used in MOCVD equipment
- Increase sales of quartz and ceramic products used in manufacturing processes; sell thermo-electric modules used for heat produced by LED lighting products
- Grow in the discrete devices market; start direct sales in addition to CMS operations; use surface processing technologies to increase sales in the FPD market

## 2 Horizontal expansion in the PV market

- Use alliances with other manufacturers to develop and sell equipment and peripheral equipment for production processes through the wafer processing stage
- Provide comprehensive support that extends to operator training and assistance for production processes

## 3 Expand the PV Business

• Expand the multi-crystal ingot business and the vessel business for multi-crystal Si ingot furnace

## 4 Development new materials and technologies

• Ceramics, value-added materials for thermo-electric modules, EB-Gun for thin-film equipment , FCA, etc.

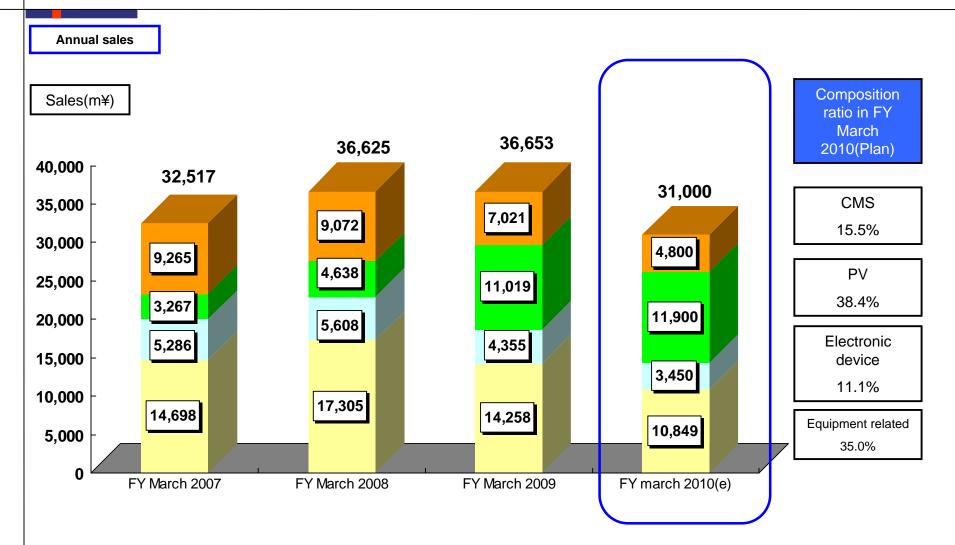
#### 5 Start new businesses

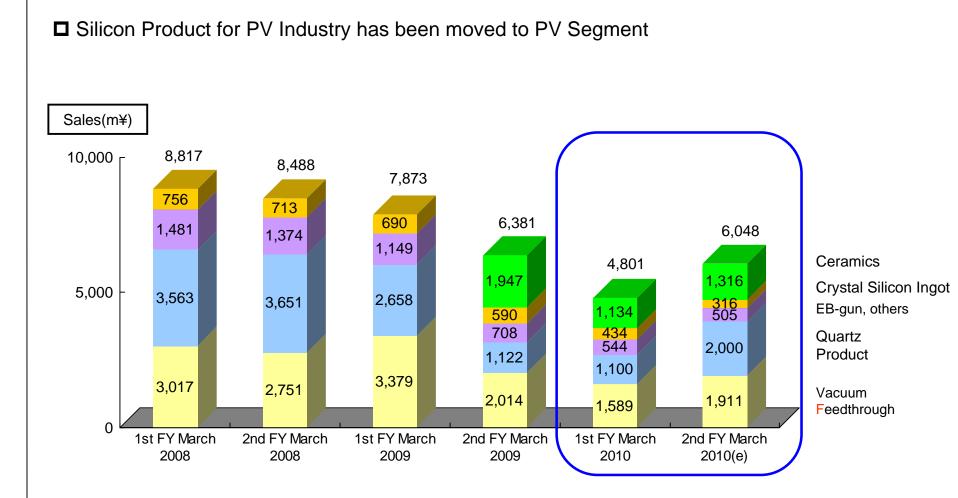
3

- Extend activities involving vacuum technologies to sectors other than electronics
- Conduct aggressive sales activities targeting device manufacturers
- Start operating PV factories under contract for other companies

## Sales trend by segment

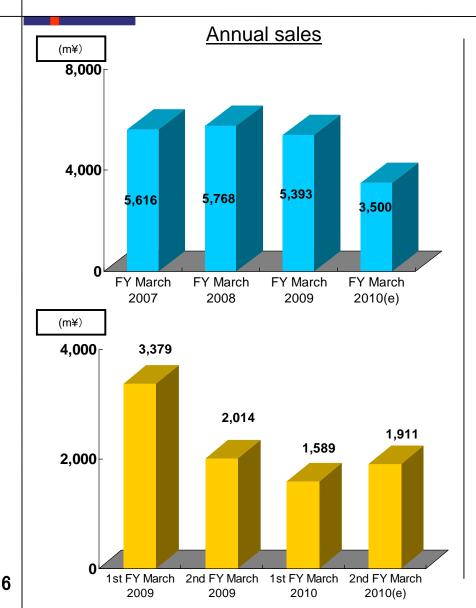






FerroTec





#### 1. Status of 1<sup>st</sup> half of FY March 2010

- Sales decreased in Japan, US and Asia as companies held back on investments in semi-conductor equipment
- Recovery of the domestic market will be delayed and Taiwan, Korea and China will recover first
- The US market will bottom out leading to a moderate recovery Maintain strong LED Sales

## 2. Outlook for 2<sup>nd</sup> half of FY March 2010

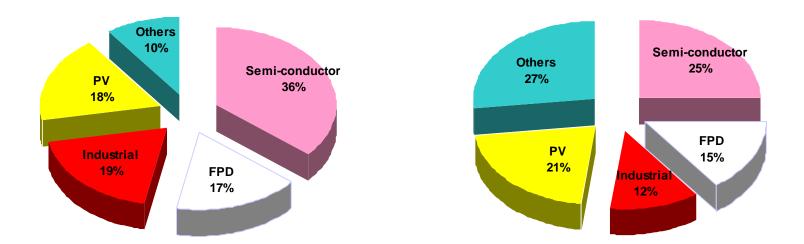
- Improvement in the Asian semiconductor market and the US market
- $\boldsymbol{\cdot}$  Domestic market will also be on a recovery trend and bottoming out
- Booming LED market, strong FPD sales
- $\cdot$  PV thin-film equipment sales will revive
- Now making a definite move toward the establishment of Korean coating manufacturers

## 《Strategies》

- Strengthen production bases in Korea and start technical support
- $\boldsymbol{\cdot}$  Further strengthen marketing of sub-assembly products
- $\boldsymbol{\cdot}$  Gain market share to counter low quality cheap products
- Strengthening of cross-industrial market



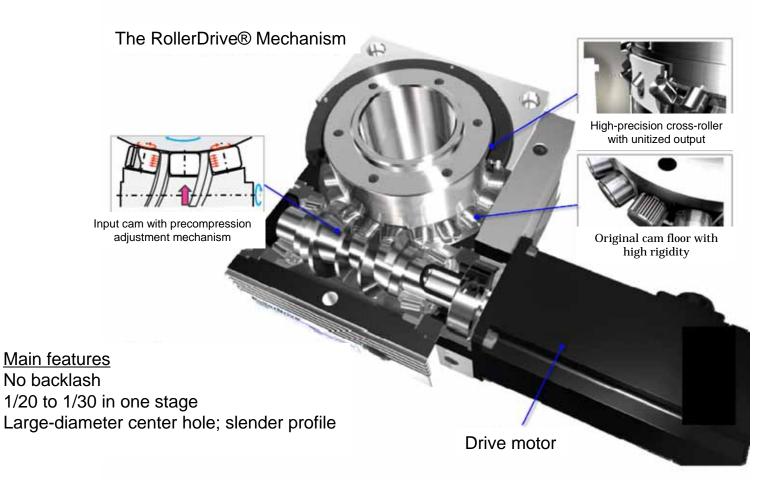
The first half of FY March 2009 Sales 3,379 million yen The first half of FY March 2010 Sales 1,589 million yen



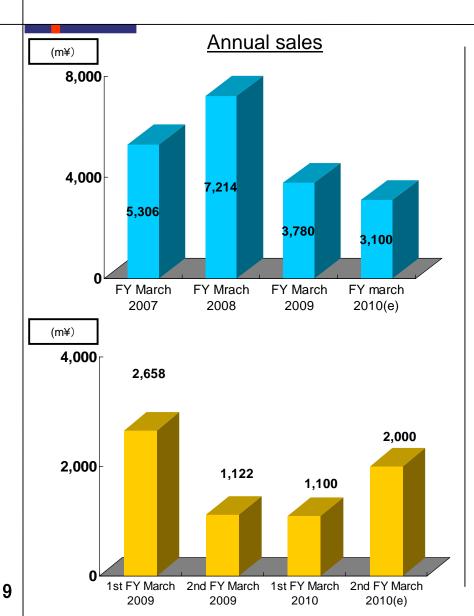
Industrial: Industrial Vacuum Equipment Others: Aero, Medical, Science etc



Expand sales of new products (FerroDrive with speed reducer) – Goal is sales of ¥100 million in first year







#### 1. Status of 1<sup>st</sup> half of FY March 2010

- The effect of decline in device manufacturers' equipment utilization
- The effect of a sharp decline in shipments for large OEM customers in Japan
- · Sales to large OEM customers in the US was also weak
- Implement production adjustments in Japan and China to cut fixed costs

## 2. Outlook for 2<sup>nd</sup> half of FY March 2010

- Taiwan market will do a brisk business to continue to boost sales
- Orders from users in Japan will increase
- Recovery in orders from major OEM customers in the US
- Orders for LED equipment are increasing considerably
- Turn profitable in the 2<sup>nd</sup> half expecting improvement in operating profit and loss

## 《Strategies》

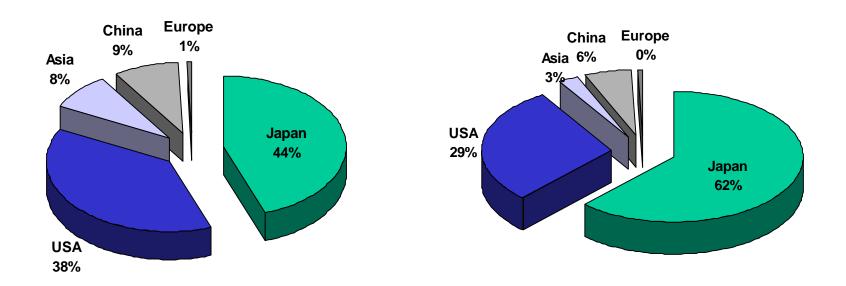
- Continue to make proposals for PV products
- · Separate and manufacture low priced products and high-quality products
- $\boldsymbol{\cdot}$  Strengthen LED market products to maintain high market share
- $\boldsymbol{\cdot}$  Strengthening of products for device manufacturers and Asian market

Quartz products : Sales by Region



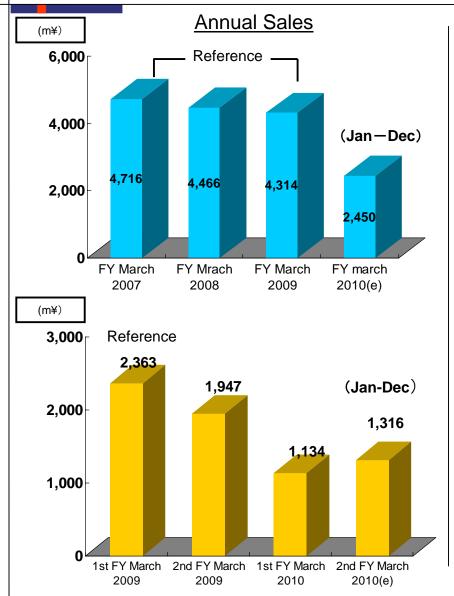
The first half of FY March 2009 Sales 2,658 million yen The first half of FY March 2010

Sales 1,100 million yen



## Status and Outlook for Ceramics Products





11

#### 1. Status of 1<sup>st</sup> half (Jan-Jun) of FY March 2010

#### Machinable Ceramics (Photoveel)

- The quantity of ceramics for memories (N/Flash) went through a gradual recovery phase but suffered a drastic price collapse
- Sales of ceramics for logics increased with limited influence of the recession

#### **Fine Ceramics**

- In particular, April to June sales and orders dropped to an unprecedented low as semi-conductor manufacturers cut production and postponed new investments
- 2. Outlook for 2<sup>nd</sup> half (Jul-Dec) of FY March 2010

#### Machinable Ceramics (Photoveel)

- Stable orders due to spread of ceramics for N/Flash
- Sales of logics for the uses of home electronics and cars remained strong demand continues to expand

#### **Fine Ceramics**

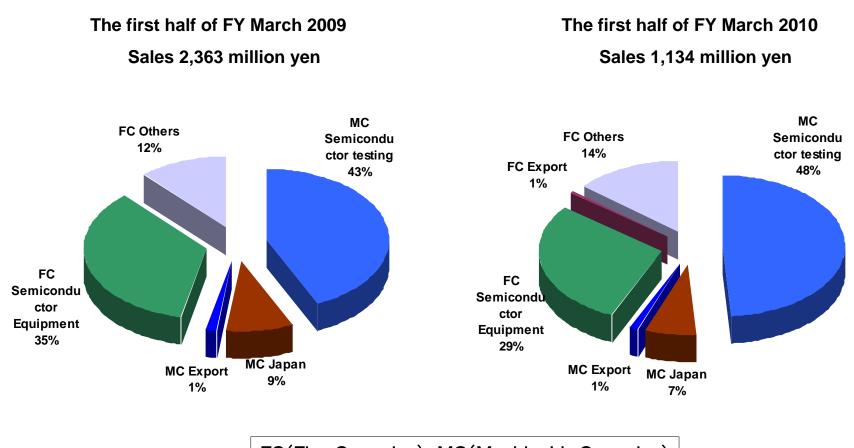
- Orders are recovering compared with the beginning of period due to new investments by manufacturers of semi-conductors for Taiwan. Partial recovery for Korea from 4Q.
- Now developing the US and Singapore markets steadily for export purposes

#### 3. Continued sales policy

- Expand applications for Wafer circuit inspection tools
- Strengthen new customers and development and marketing of new use in the US and Asian markets
- Enhancement of sales competitiveness by new material development

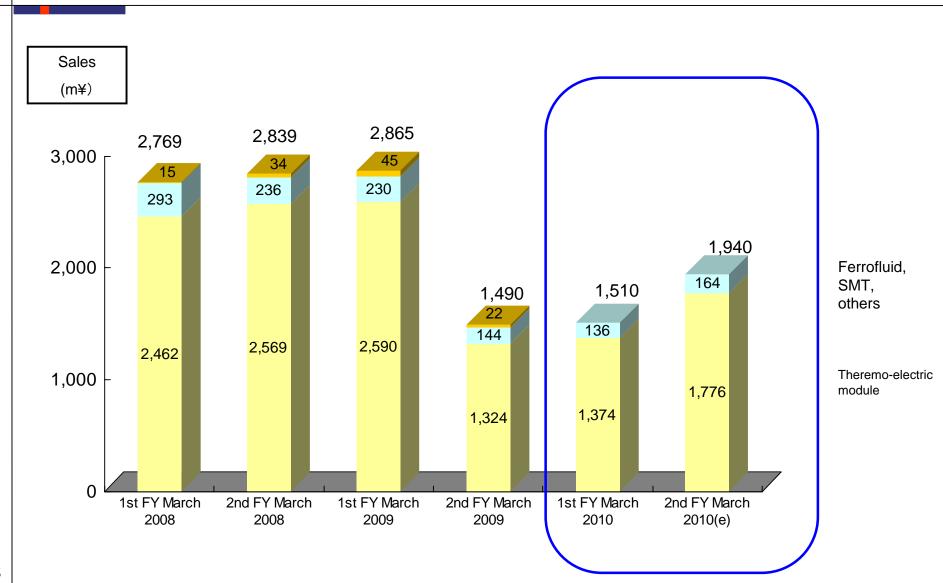
Ceramics : Sales by Category

FeroTec



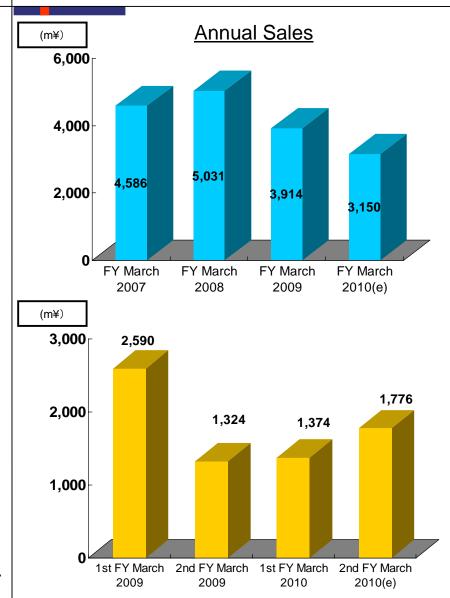
FC(Fine Ceramics), MC(Machinable Ceramics)

## Electronic device business : Sales by product



FerroTec

## Status and Outlook for Thermo-electric Module Products



#### 1. Status of 1<sup>st</sup> half of FY March 2010

#### Automobile Seat Application

• Sales remain sluggish due to the effect of global auto industry reorganization

Productions resumed and bottomed out as a result of support measures by governments

#### **Other Application**

• Sales for products used in semi-conductors dropped but consumer products and science are favorable

• Sluggish in the domestic market but sales for biotech equipment are strong and consumer products grew heading for recovery

#### 2. Outlook for 2<sup>nd</sup> half of FY March 2010

#### Automobile Seat Application

- Recovery period is faster than expected but making a moderate recovery
- Domestic cars and Korean cars are doing well

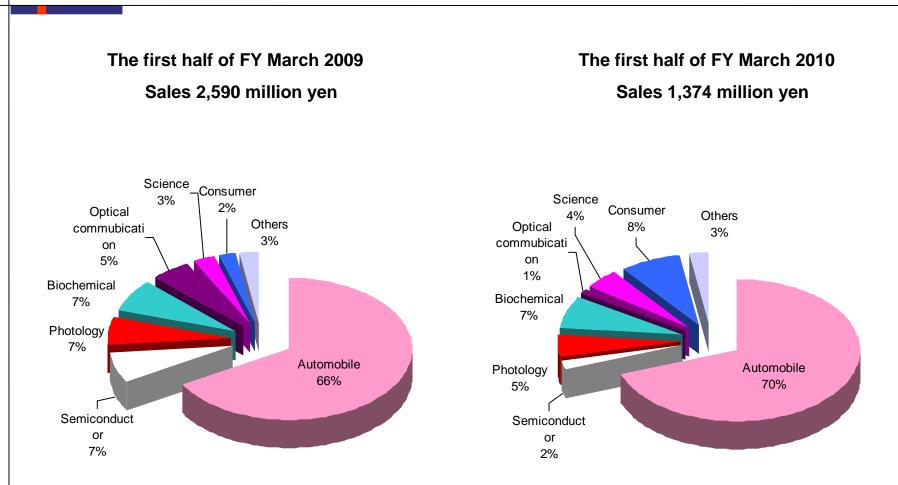
#### **Other Application**

- Growth in sales for use in medical inspection and biotech equipment
  Sales for products used in consumer products remained favorable
- by expanding new products

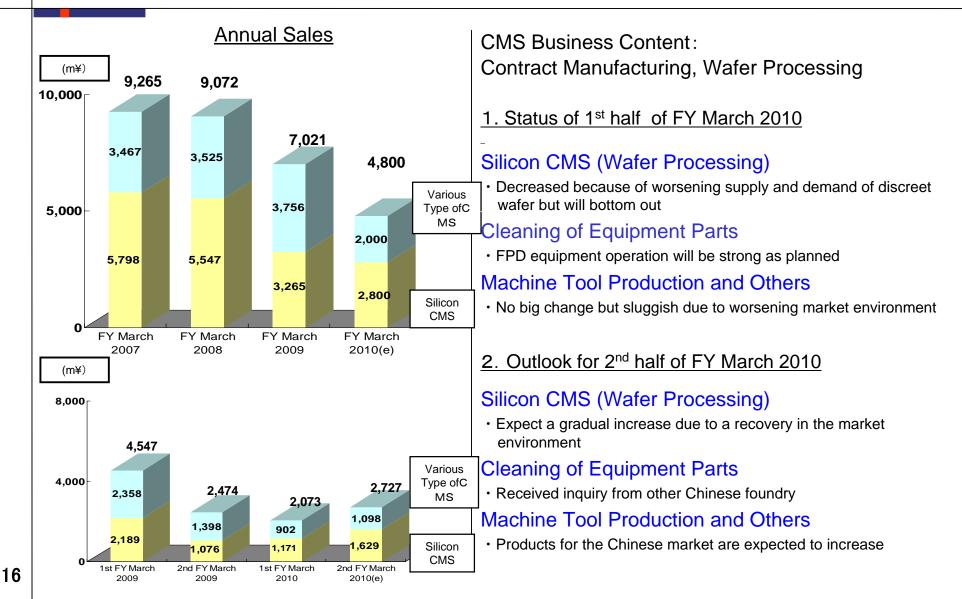
#### 《Strategies》

- ·Expand sales of applied products
- ·Full-scale entry into optical communication market
- ·Challenge to new applications

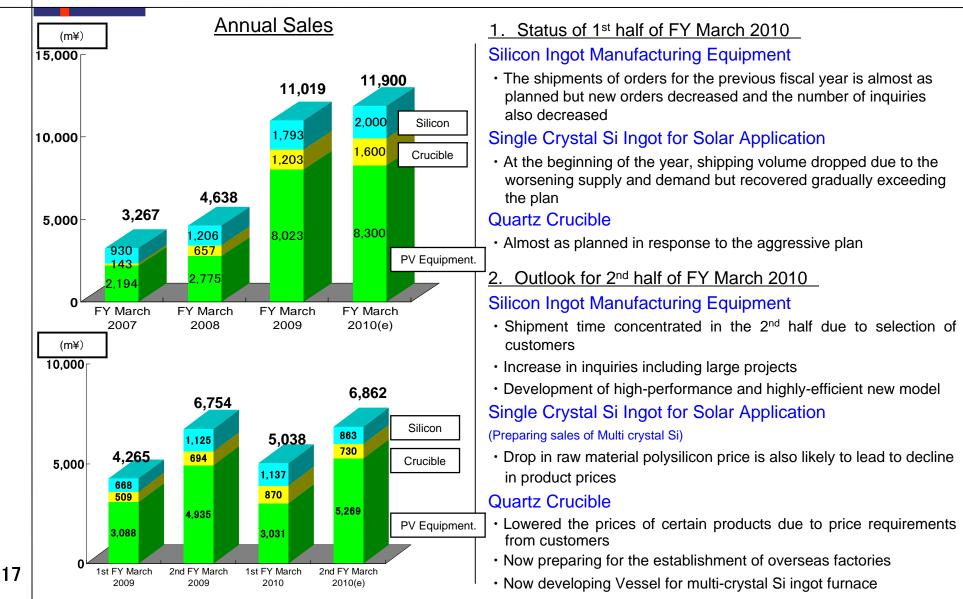






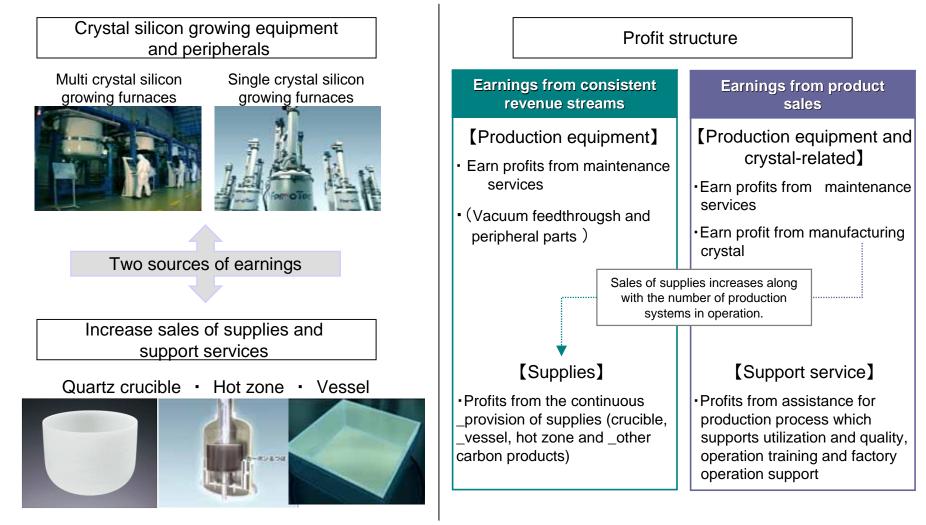






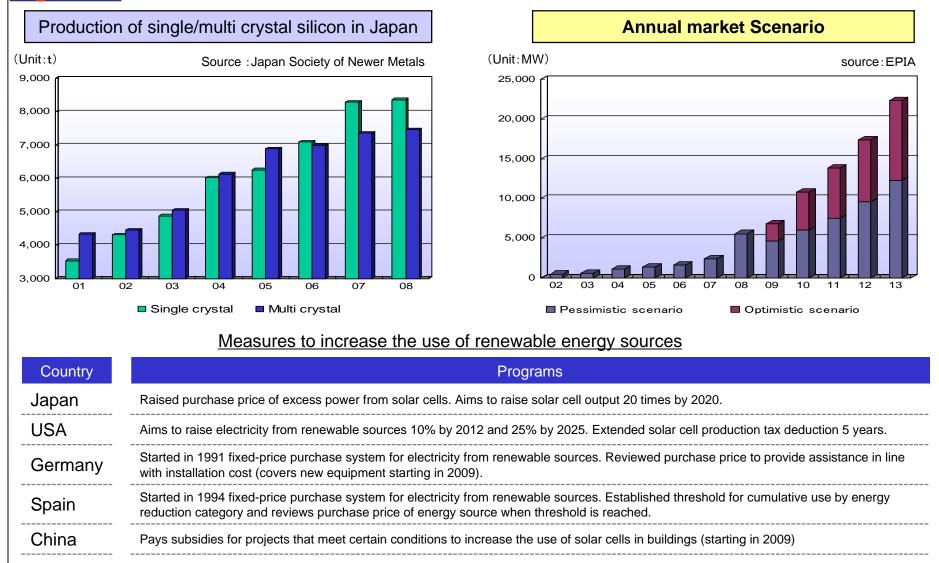


Comprehensive support in combination with Production Equipment business with supplies, Crystal business and Support services



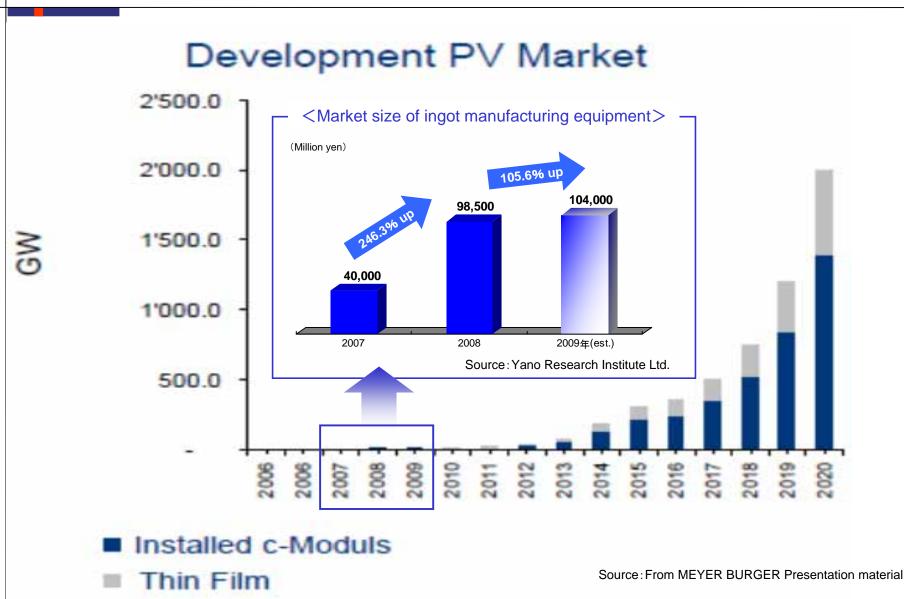
## Reference Material for PV industry





#### Excerpts from media reports





20



## Ferrotec Corporation

Results for the 1<sup>st</sup> half of the fiscal year ended March 31, 2010

November 25, 2009

(JASDAQ 6890)

http://www.ferrotec.co.jp/

1. This 1st half results cover six months period from April to September of Ferrotec, and six months period from Jan. to June of consolidated subsidiaries and affiliated companies included in investment profit loss in equity method.

2. These materials were prepared for the purpose of providing information regarding the company's results of operations for the 1<sup>st</sup> half of the fiscal year ending March 31, 2010. These materials were prepared based on information available as of Nov. 25, 2009. All opinions, forecasts and other forward-looking statements are based on management's judgments in accordance with materials available at that time and may be changed without prior notice.



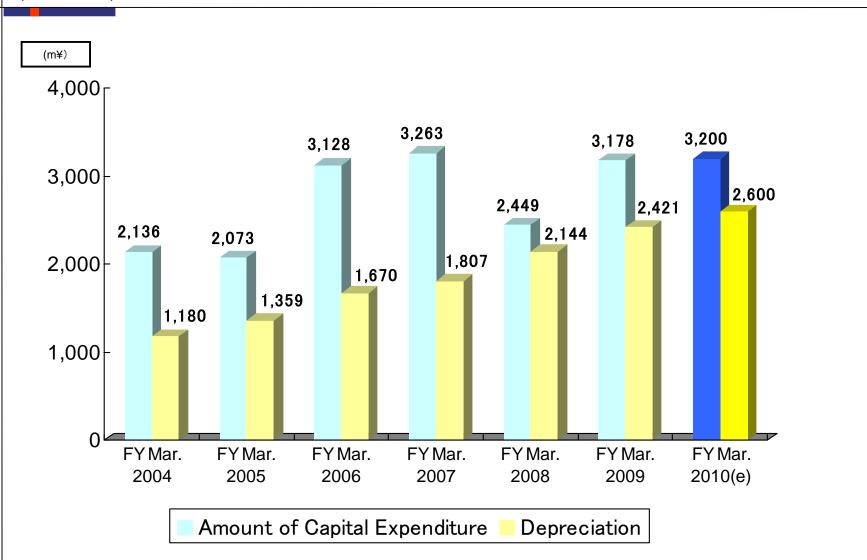
(m¥)		Plan of 1st half of FY March <u>2010</u>		Results of 1st falf of FY March 2010			
		Amount	Pct. of sales	Amount	Pct. of sales	Difference	Pct. Change
Sales		12,000	100.0%	13,423	100.0%	1,423	11.9%
	Vaccum feedthroughs	1,313	10.9%	1,589	11.8%	276	21.0%
	Quartz	979	8.2%	1,100	8.2%	121	12.4%
	Ceramics	1,100	9.2%	1,134	8.4%	34	3.1%
	Silicon products	663	5.5%	978	7.3%	315	47.5%
	Production device Related	4,055	33.8%	4,801	35.8%	746	18.4%
	Thermo-electric Modules	1,080	9.0%	1,374	10.2%	294	27.2%
	Ferro fluid, FFB&Others	142	1.2%	137	1.0%	5	-3.5%
	Electronic devices	1,222	10.2%	1,511	11.3%	289	23.6%
	Quartz crucibles	900	7.5%	870	6.5%	30	-3.3%
	Solar silicon	825	6.9%	1,137	8.5%	312	37.8%
	Si Growing Equip.	3,135	26.1%	3,031	22.6%	104	-3.3%
	PV	4,860	40.5%	5,038	37.5%	178	3.7%
	CMS	1,863	15.5%	2,072	15.4%	209	11.2%
Gross Profits		3,500	29.2%	3,323	24.8%	177	-5.1%
SG&A		3,550	29.6%	3,866	28.8%	316	8.9%
Operating Profits		50	-0.4%	543	-4.0%	493	-
Ordinary Profits		150	-1.3%	504	-3.8%	354	-
Net Sales		150	-1.3%	437	-3.3%	287	-



		FY March 2010 1st. half		FY March 2010 2nd. half (e)			
(m¥)		Amount	Pct. of sales		Pct. of sales	Difference	Pct. Change
Sales		13,423	100.0%	17,577	100.0%	4,154	30.9%
	Vacuum feedthroughs	1,589	11.8%	1,911	10.9%	322	20.3%
	Quartz	1,100	8.2%	2,000	11.4%	900	81.8%
	Ceramics	1,134	8.4%	1,316	7.5%	182	16.0%
	Silicon products	978	7.3%	822	4.7%	156	-16.0%
	Production device Related	4,801	35.8%	6,049	34.4%	1,248	26.0%
	Thermo-electric Modules	1,374	10.2%	1,776	10.1%	402	29.3%
	Ferro fluid, FBB&Others	137	1.0%	163	0.9%	26	19.0%
	Electronic device	1,511	11.3%	1,939	11.0%	428	28.3%
	Quartz crucibles	870	6.5%	730	4.2%	140	-16.1%
	Solar silicon	1,137	8.5%	863	4.9%	274	-24.19
	Si Growing Equip.	3,031	22.6%	5,269	30.0%	2,238	73.89
	PV	5,038	37.5%	6,862	39.0%	1,824	36.2%
	CMS	2,072	15.4%	2,728	15.5%	656	31.7%
Gross Profits		3,323	24.8%	4,976	28.3%	1,653	49.7%
SG&A		3,866	28.8%	3,833	21.8%	33	-0.9%
Operating Profits		543	-4.0%	1,142	6.5%	1,685	
Ordinary Profits		504	-3.8%	804	4.6%	1,308	
Net Profits		437	-3.3%	538	3.1%	975	

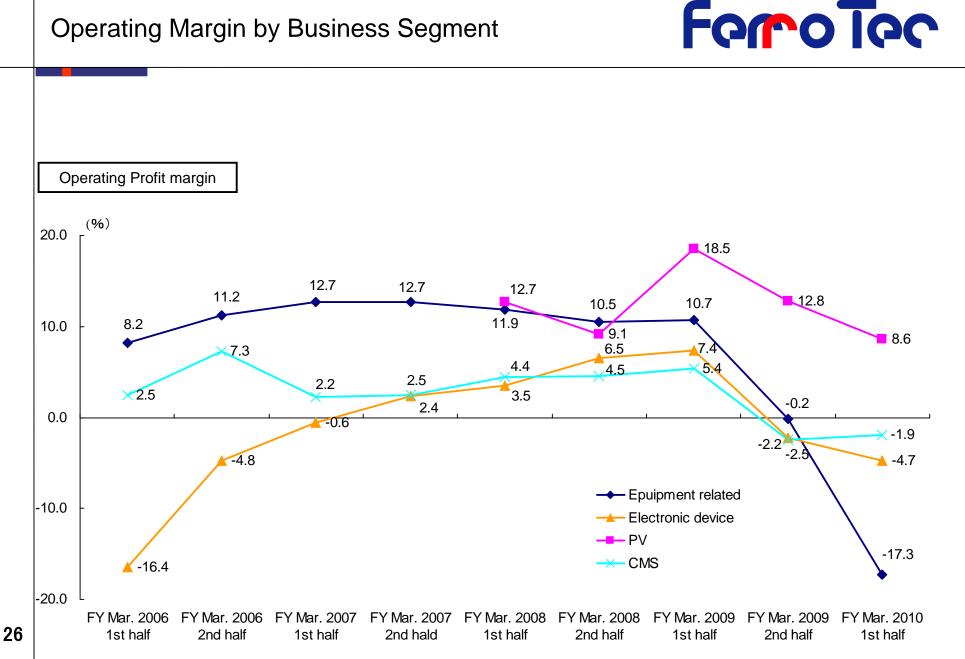
Fero	

		FY March 2009		FY March 2010(e)			
(m¥)		Amount	Pct. of sales	•	Pct. of sales	Difference	Pct. Change
Sales		36,653	100.0%	31,000	100.0%	5,653	-15.4%
	Vaccum feedthroughs	5,393	14.7%	3,500	11.3%	1,893	-35.1%
	Quartz	3,780	10.3%	3,100	10.0%	680	-18.0%
	Ceramics	1,947	5.3%	2,450	7.9%	503	25.8%
	Silicon products	3,138	8.6%	1,800	5.8%	1,338	-42.6%
	Production device Related	14,258	38.9%	10,850	35.0%	3,408	-23.9%
	Thermo-electric Modules	3,914	10.7%	3,150	10.2%	764	-19.5%
	Rerro fluid, FBB&Others	441	1.2%	300	1.0%	141	-32.0%
	Electronic device	4,355	11.9%	3,450	11.1%	905	-20.8%
	Quartz crucibles	1,203	3.3%	1,600	5.2%	397	33.0%
	Solar silicon	1,793	4.9%	2,000	6.5%	207	11.5%
	Si Growing Equip.	8,023	21.9%	8,300	26.8%	277	3.5%
	PV	11,019	30.1%	,	38.4%	881	8.0%
	CMS	7,021	19.2%	4,800	15.5%	2,221	-31.6%
Gross Profits		11,295	30.8%	8,300	26.8%	2,995	-26.5%
SG&A		8,505	23.2%	7,700	24.8%	805	-9.5%
<b>Operating Profits</b>		2,790	7.6%	600	1.9%	2,190	-78.5%
Ordinary Profits		2,097	5.7%	300	1.0%	1,797	-85.7%
Net Profits		743	2.0%	100	0.3%	643	-86.5%
Capital investment		3,178	8.7%	3,200	10.3%	22	0.7%
Depreciation		2,421	6.6%	2,600	8.4%	179	7.4%

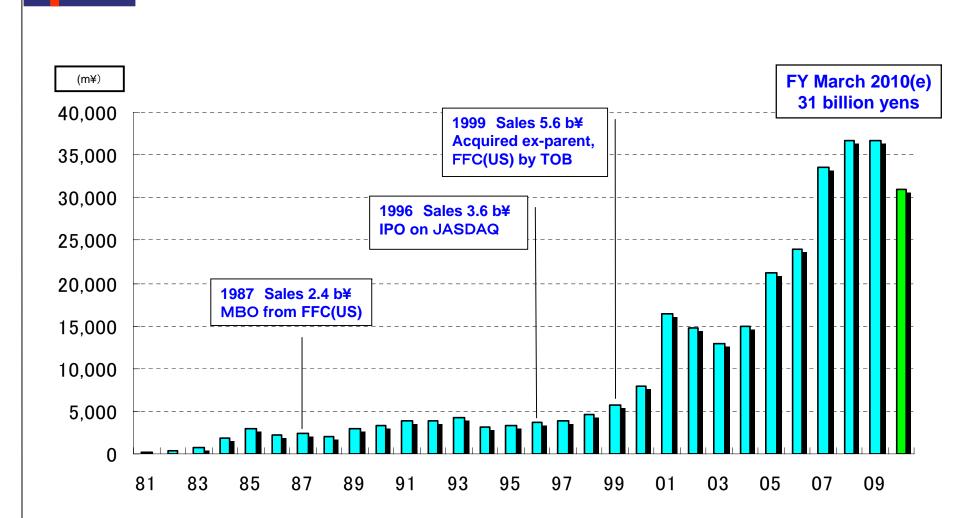


FerroTec

## **Operating Margin by Business Segment**

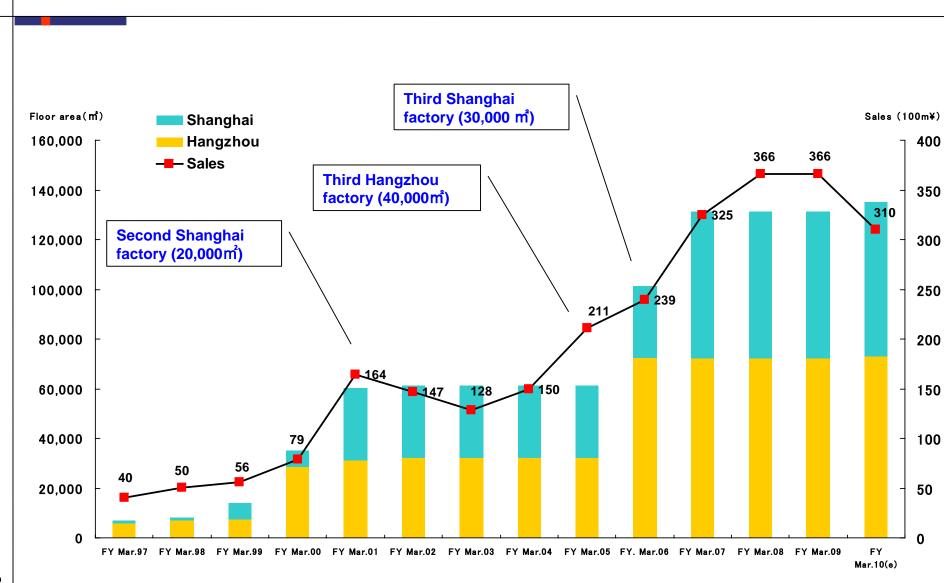


## Sales and Growth of Ferrotec Group



FeroTec

## Growth in Production Capacity in China



FerroTec



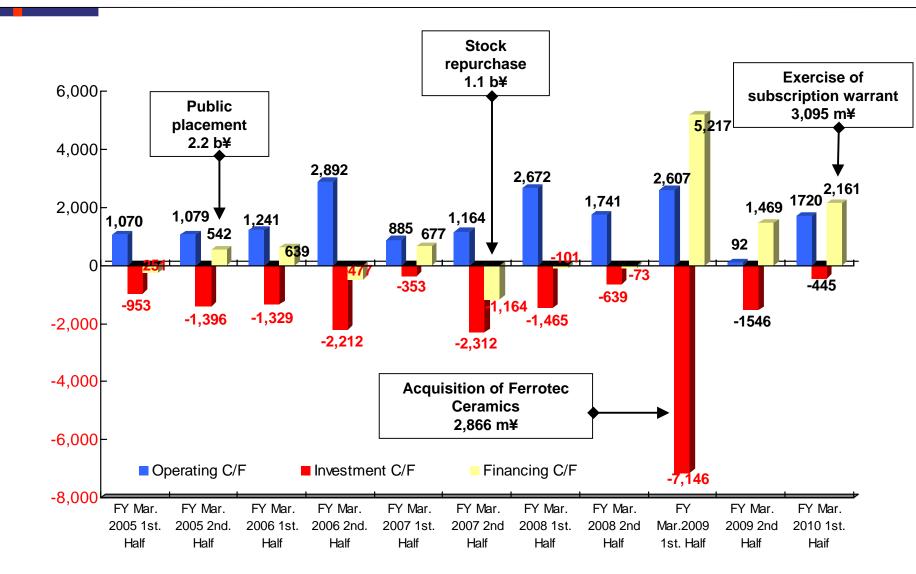
Procurement of funds completed by exercising Ferrotec's first issue of stock acquisition rights (private placement) The use of some proceeds was revised due to changes in the operating environment.

Stock acquisition rights subject to exercise designation	Funds procured
3,000 (equivalent to 3,000,000 shares of stock)	¥ 3,051,000,000 (as of October 16, 2009)

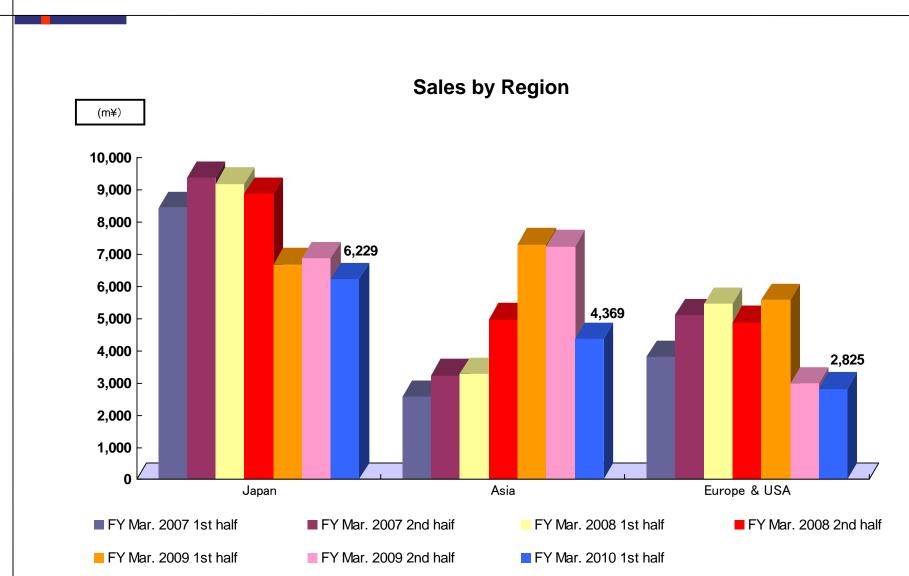
Use of proceeds	Estimated amount (Initial plan shown in parentheses)		
Increase production capacity in China	About ¥ 1.1 billion (about ¥ 500 million)		
Capital expenditures and other items for new quartz crucible factory now under consideration	About ¥ 800 million (about ¥ 1.5 billion)		
Repayment of some loans	About ¥ 1,100 million (about ¥ 1 billion)		

## Cash Flow trend





## Sales by Region



FeroTec



Past M&A and alliances ---- Acquisition of companies with manufacturing technologies and alliances to enlarge business operations

Time	Company acquired/Alliance partner	Description
July. 2008	Acquired of Sumikin Ceramics. Changed the name of the company.	Acquired 90% of Sumikin Ceramics and Quartz Corporation 's(SCQ) stock after SCQ divests all business excluding the Ceramic business. New company's name is Ferrotec Ceramics.
May. 2008	Business cooperation of Wire-Saw and establishment of joint venture for trading Wire-Saw outside Japan with Tokyo Rope Manufacturing Co., Ltd	Tokyo Rope Group and Ferrotec Group agreed to form an alliance to manufacture and establish a joint venture to distribute wire saws in countries other than Japan.
Dec. 2007	Jointly established an assembly sales company in Korea.	Established "CMC Ferrotec" with the local company for the manufacture of solar cell manufacturing equipment.
April, 2007	Established a joint venture Manufacturing Corporation in Korea	Established joint venture corporation Ferrotec Korea Co.Ltd with Korean Company(KSMC Corp) for manufacturing Vacuum Feedthrough.
Nov. 2006	Merger and liquidation	Merged with Ferrotec Precision, which produces Vacuum feedthrough. Liquidated two subsidiaries(Dec.).
Sep. 2006	Established a joint venture in Taiwan	Established Ferrotec Taiwan jointly with a local partner to sell vacuum feedthroughs and offer maintenance services
Dec. 2005	Established a joint venture with LTD Ceramics Inc. (USA)	Established joint venture in China to manufacture ceramics
July 2005	Acquired NORD Co., Ltd.(Russia)	Acquired company that manufactures and sells Peltier (thermoelectric) devices in order to increase share of global market
May 2005	Business alliance with KSM Inc.(Korea)	Alliance for mutual sales of vacuum feedthroughs and products associated with semiconductor manufacturing equipment
Oct. 2004	Acquired trade right from Advanced Fluid Systems(U.K.)	Purchased rights from this company for the European vacuum feedthrough business
July 2004	Exclusive contract with Applied Films(Germany)	Gave this company exclusive rights to purchase Ferrotec vacuum feedthroughs
Oct. 2003	Business and financial alliance with Aliontek	Technology alliance with ALIONTEK CORPORATION, which has technology for the grinding of quartz products, strengthened manufacturing technology for quartz products in China
July 2002	Established a joint venture Diacelltec Corporation with Mitsubishi Cable Industries, Ltd	Established jointly owned company to manufacture and sell lithium-ion batteries and take over the lithium- ion battery business of Mitsubishi Cable
Feb. 2002	Business alliance with Toshiba Ceramics and Mitsui Co. for wafer production by commissioning	Ferrotec silicon wafer production equipment moved to China factory to conduct a CMS business, and manufacturing is outsourced to this factory
Feb. 2002	Acquired control of Ferrotec Silicon through exchange of shares	Group acquires manufacturing technology and operating rights for silicon crystal ingots