

# MANAGEMENT DISCUSSION AND ANALYSIS

## Overview of the Group's Performance

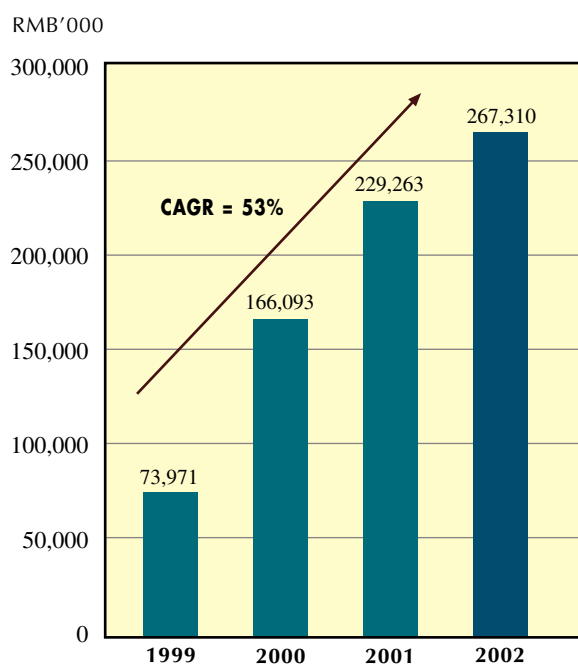
Profits generated by the Group during the track record period were mainly attributable to manufacture and sale of a wide range of zirconium chemicals, which include zirconium oxychloride, zirconium carbonate and zirconium oxides and other zirconium chemicals under the brandname "Long Jing".

## Turnover

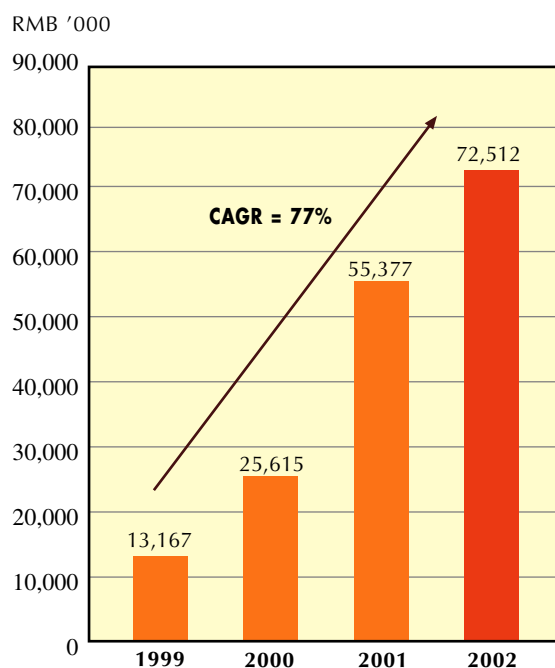
For the year ended 31 December 2002, the Group's turnover was RMB267,310,000, representing an increase of 17% as compared to that of Year 2001. The increase was mainly attributable to the drastic increase in the sales of zirconium oxides in Year 2002. In particular, the sales volume of micrometric zirconium oxides rose from 128 tonnes in Year 2001 to 364 tonnes in Year 2002; whereas the sales volume of stabilized zirconium oxides soared from 2 tonnes in Year 2001 to 128 tonnes in Year 2002; and sales volume of nanometric zirconium oxides accomplished 13 tonnes in year 2002.

For the three years ended 31 December 1999, 2000 and 2001, the Group's turnover reached RMB73,971,000, RMB166,093,000 and RMB229,263,000 respectively. Comparatively, prominent growth in the Company's turnover was sustained during the period from 1999 to 2001. This was mainly attributable to the accreditation of "Qualification Certificate for Wastewater Treatment Facilities in Taihu Lake Basin in Jiangsu Province" by the Company in 1998, and the compliance with the environmental protection regulations under which the Company is allowed to carry out mass production of zirconium compounds, leading to the growth in sales volume which in turn drove up the turnover.

Turnover (1999-2002)



Profit Attributable to Shareholders (1999-2002)



### Applications of Zirconium Chemicals

Product	Applications
Zirconium oxychloride	Rubber additives Paint dryer Feedstock for the production of other zirconium chemicals
Zirconium carbonate	Water resistant materials for house building Fiber and paper coating Medical products (anti-fungal and deodorant)
Zirconium oxide	Garment (water-proof clothing) Cosmetics (lipstick, foundations, mascara) Health care products (UV-block lotions) Medical products (man-made bones, denture) Never-worn watch shell Optical fibers Jewellery (Cubic Zirconia) Catalyst in vehicle exhaust system
Zirconium sulphate	Leather tanning Leather degreaser
Zirconium acetate	Paint dryer Fiber and paper coating (flame and smoke suppressant) Water resistant materials for house building
Potassium zirconium hexafluoride	High-grade electronic materials (computer hard discs) Metal alloys Ceramics, enamelware, glasses
Ammonium zirconium hexafluoride	Pesticides
Zirconium silicate	Used for the manufacture of other zirconium chemicals, ceramic glaze and enamels
Zirconium hydroxide	Electronic ceramics (batteries cut-off switch, motor magnetic circuit)

### Turnover Analysis by Product Category

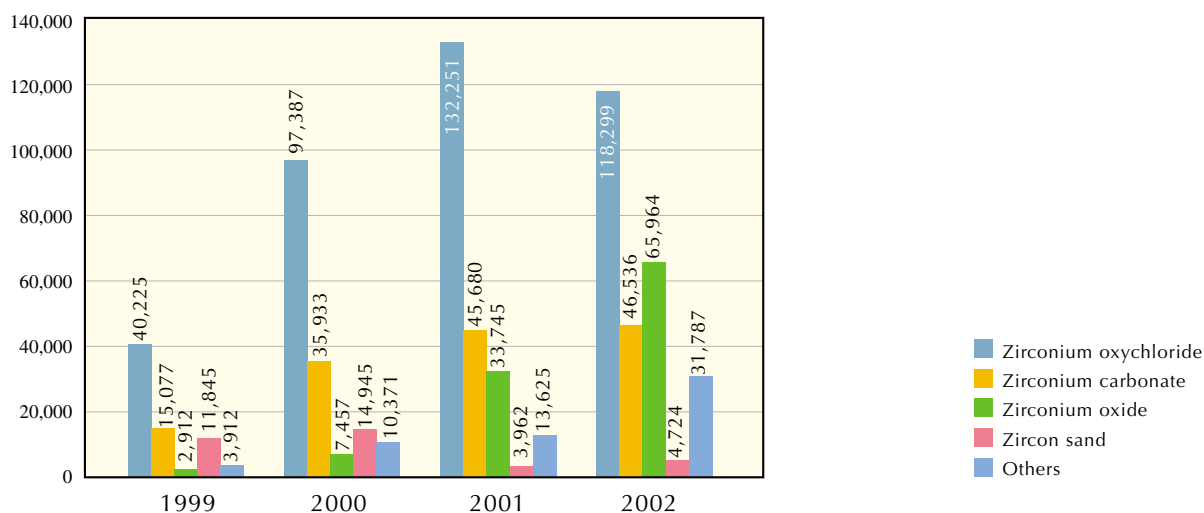
The following table presents the Group's turnover analysis by product category for the four years ended 31 December 2002:

Product Sales	1999		2000		2001		2002	
	RMB'000	%	RMB'000	%	RMB'000	%	RMB'000	%
Zirconium oxychloride	40,225	55	97,387	59	132,251	57	<b>118,299</b>	<b>44</b>
Zirconium carbonate	15,077	20	35,933	22	45,680	20	<b>46,536</b>	<b>17</b>
Zirconium oxides	2,912	4	7,457	4	33,745	15	<b>65,964</b>	<b>25</b>
Zircon sand	11,845	16	14,945	9	3,962	2	<b>4,724</b>	<b>2</b>
Others (Note 1)	3,912	5	10,371	6	13,625	6	<b>31,787</b>	<b>12</b>
	<u>73,971</u>	<u>100</u>	<u>166,093</u>	<u>100</u>	<u>229,263</u>	<u>100</u>	<u><b>267,310</b></u>	<u><b>100</b></u>

Note 1: Including potassium zirconium hexafluoride, zirconium sulphate, zirconium acetate, zirconium silicate and ammonium zirconium hexafluoride.

### Turnover Analysis by Product Category

RMB'000

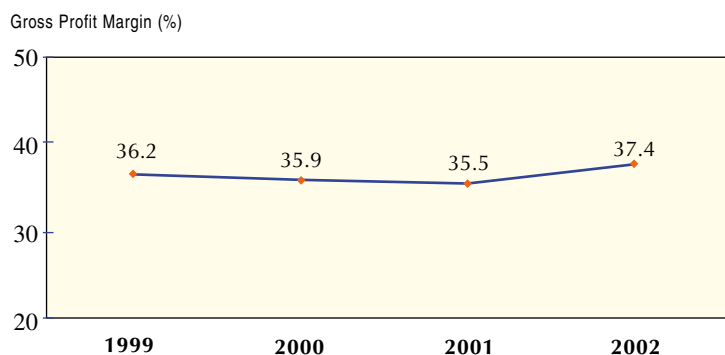


The Group has strategically moved to high-end products, such as zirconium oxides, the sales of zirconium oxides surged up from 4% in 1999 to 25% in 2002, as a result of product structure adjustment. Commitment to move forward to high-end deep-processing products or downstream products (the “High-End” products) were evidenced by the sales of nanometric zirconium oxide started in 2002.

Zirconium Oxides	Sales Volume	
	2001 (Tonnes)	2002 (Tonnes)
Ordinary grade	473	703
Superfine zirconium oxide (stabilized and micrometric grade)	130	492
Nanometric grade	—	13

Gross profit margin of High-End products outperformed the average gross profit margin of the Group. High-End products required further process from upstream products, such as zirconium oxychloride, which include ordinary grade zirconium oxide, stabilized zirconium, micrometric zirconium oxide and nanometric zirconium oxide.

#### Gross Profit Margin (1999-2002)



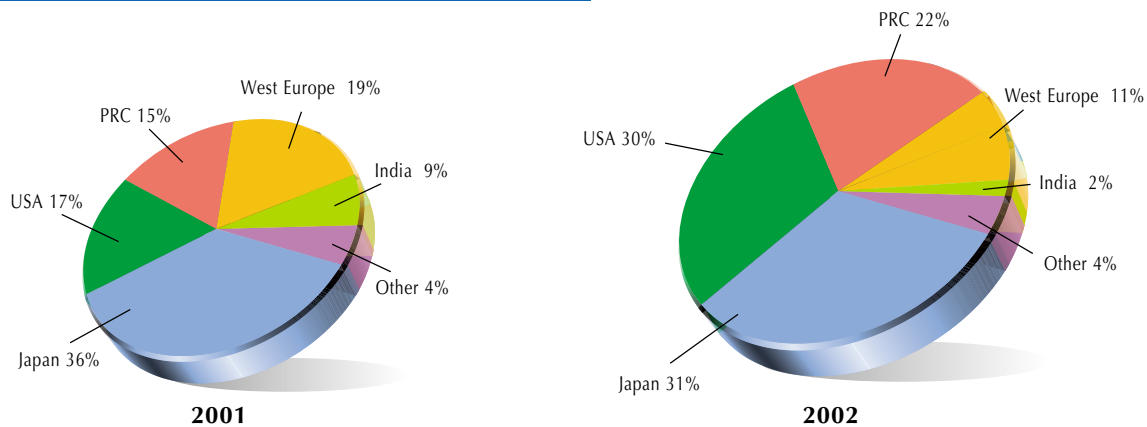
#### Turnover analysis by geographical region

The following table presents turnover analysis by geographical region for the four years ended 31 December 2002 and their respective percentages in total turnover:

Regions	1999		2000		2001		2002	
	RMB'000	%	RMB'000	%	RMB'000	%	RMB'000	%
Japan	20,290	27	67,201	41	82,848	36	83,153	31
USA	15,856	21	34,641	21	39,653	17	81,024	30
PRC	33,763	46	52,241	32	33,371	15	58,906	22
West Europe (Note 2)	2,665	4	6,014	3	42,908	19	28,961	11
India	—	0	12	0	20,509	9	6,072	2
Others (Note 3)	1,397	2	5,984	3	9,974	4	9,194	4
	<u>73,971</u>	<u>100</u>	<u>166,093</u>	<u>100</u>	<u>229,263</u>	<u>100</u>	<u>267,310</u>	<u>100</u>

Note 2: Including UK and the Netherlands

Note 3: Including Korea, Austria and Lithuania

**Turnover Analysis by Geographical Region****Capital Expenditure**

The capital expenditure of the Group for the four years ended 31 December 2002 is as follows:

	1999 RMB'000	2000 RMB'000	2001 RMB'000	2002 RMB'000
Capital expenditure	2,299	5,105	4,536	<b>12,751</b>

For the year ended 31 December 2002, the Group's capital expenditure was RMB12,751,000, representing an increase of 181% as compared to RMB4,536,000 in Year 2001. This was mainly attributable to expansion of production.

**Liquidity and Financial Resources**

As at 31 December 2002, the Group's bank and cash balances, including pledged deposits, were approximately RMB172,988,000 (2001: RMB85,072,000). The Group had no long term liabilities as at 31 December 2002 and 2001.

**Contingent Liabilities**

As at 31 December 2002, the Group had no contingent liabilities.

**Pledge of Assets**

As at 31 December 2002, the Group pledged a bank deposit of RMB453,000 (2001: RMB415,000) as securities for trade financing facilities granted by banks.

As at 31 December 2002, the Group had banking facilities including bank overdraft of HKD500,000 and a corporate credit card of HKD600,000. The facilities are secured by the certificate of deposit amounted to HKD1,000,000 which carried at fixed rate of 1.8% per annum and with a maturity of two years. The Group had no banking facilities for the year 2001.

**Employees**

For the year ended 31 December 2002, the Group had approximately 444 employees (2001: 483 employees). In Year 2002, the aggregate employee remuneration (including directors' fees) was approximately RMB19,379,000 (2001: RMB16,711,000). The Group offers competitive salary packages to its employees who will also be given incentives based on their individual performance as well as the Group's overall remuneration and bonus systems.