## 2008 Annual Report on Rare Earth Market

## 1. Definition, distribution and application of rare earth

#### 1.1 Definition

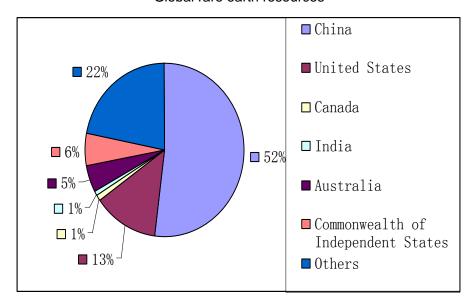
Rare earth elements or rare earth metals are a collection of seventeen chemical elements in the periodic table, namely scandium, yttrium, and the fifteen lanthanoids. Scandium and yttrium are considered rare earths since they tend to occur in the same ore deposits as the lanthanides and share similar chemical properties with them.

Based on the electronic structure and physical and chemical properties of rare earth elements' atoms and different characteristics etc, the seventeen elements are usually divided into two groups, light rare earth or cerium group (including cerium, lanthanum, praseodymium, neodymium, promethium, samarium, europium and gadolinium) and heavy rare earth or yttrium group (including terbium, dysprosium, holmium, erbium, thulium, ytterbium, lutetium, scandium, and yttrium.

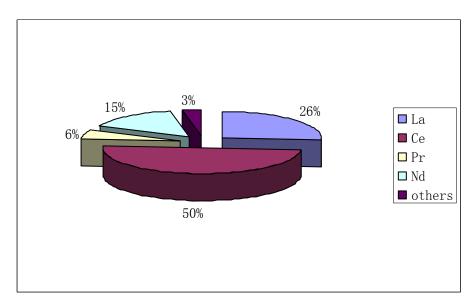
## 1.2 Distribution and output

The recoverable reserves for rare earth are around one million tons all over the world. In which, China ranks first, holing around 52 million tons of rare earth oxide (REO), about half of the total amount in the world. The following countries are United States (13 million tons of REO), Commonwealth of Independent States (6 million tons of REO), India (1.1 million tons of REO), Canada (0.94 million tons of REO), South Africa (0.39 million tons of REO), and Brazil (0.11 million tons of REO) etc. European counties and Japan have almost no rare earth resources.

## Global rare earth resources



The rare earth elements exist in the crust by the pattern of minerals, and there are mainly three kinds of patterns.



As the basic elements of minerals, rare earth in the form of rare earth ion compounds exists in minerals. This kind of mineral is often called as monazite, fluorine carbon cerium ore, and etc.

As the impurity element of minerals, rare earth dispersed in the minerals and rare metal minerals. Such minerals containing rare earth elements can be called mineral apatite, fluorite, and etc.

In a state of ion, rare earth is absorbed on certain minerals' surface or particles, and this kind of clay minerals is mainly mica.

China is rich of rare earth resources, which is special, various and great reserves. Light rare earth resources are mainly existed in the rare earth mines of Baotou, Sichuan, Shangdong and Fujiang, whose industry reserves are around 40,000,000 tons in terms of rare earth oxide in the four major production zones, while around 100,000,000 tons all over the China. Heavy rare earth is rich in ion rare earth concentrate, which is mainly distributed in Jiangxi, Guangdong, Fujian, Guangxi and Yunnan. In which, Ganzhou is the major origin of ion rare earth concentrate, whose industry reserves are around 1,600,000 tons in terms of rare earth oxide, and around 6,400,000 tons from optimistic view. The total rare earth industry reserves all over the world are around 100,000,000 tons. In which, Chinese reserves make up of around 43%. The global consumption of rare earth is only around 90,000 tons totally, which is mainly supplied by China.

## 1.3 Application of rare earth

Rare earth is applied widely in metallurgy, machinery, petrochemicals, glass, ceramics and other tradtional areas. Though the consumption is small, rare earth plays major role in these fields, which is considered as industry vitamin, and improves the economic benefits. The consumption of rare earth in metallurgical industry makes up of around one thirds of total consumption. Rare earth is applied in petroleum cracking, with the characteristic of high activity, selectivity, and productivity. Rare earth in glass industry has three main applications: glass coloring, glass decoloring and glass special performance. In ceramic industry, rare earth is mainly used for ceramic pigment, glaze and rupture-proof. Moreover, rare earth has sepecial properties of photoelectromagnetism, which is used in permanent magnet widely. NdFeB magnets are called "king" of the generation of magnetic, which is the strongest magnetic material. NdFeB magnet is widely used in television, acoustic, medical equipment, maglev trains, military field and some other high-tech industry. In a word, rare earth drives mechanical and electrical industrial revolution.

# 2. Review of rare earth market in 2008

Chinese government continues to strengthen practice of 2007 resources protection, promote industrial structure and product adjustment and control rare earth export amount in 2008.

During the first and second quarter of 2008, the integration of rare earth mining continues to implement and Baotou's rare earth carbonate was still distributed by ration. Meanwhile,

Sichuan's rare earth mining was still out of production. Therefore, rare earth mining becomes orderly and properly to some extent. In third and fourth quarter, rare earth ore in Sichuan kept closure, but several plants began to resume production. As world economic crisis came, rare earth market was also influenced greatly. The prices of the main rare earth products, such as PrNd oxide, and mischmetal etc, began to fall greatly.

#### 2.1 PrNd market

In January and February of 2008, some consumers of PrNd mischmetal began to replenish stock for the Spring Festival holidays, so the market became relatively active. Menwhile, PrNd mischmetal price went up continuously and had increased around 13 percent to the high point of RMB230,000/t till March. By the middle of March, as rare earth resources exploitation was excessive in some provinces and cities in China, the demand from foreign market was retreating, and NdFeB magnets export market slowdown, PrNd mischmetal demand became weak, with the dropping price. The price dropped to the level in January till May. In June, Iner Mongolia Baotou Steel Rare Earth Hi-tech Co., Ltd called on major rare earth plants in Jiangxi, which mainly deal with rare earth ore, to suspend supplying rare earth ore, with the purpose to curb neodymium and praseodymium products prices to fall further. However, the action failed at last: the price just went up for a while, and then fell back. In the following two months, PrNd mischmetal price fell continuously, dropped by around 60% compared with those two months ago. In September, under the influence of global economic crisis, which is triggered by United State's subprime mortgage crisis, automobile, toys, computers and other industries retreated. Therefore, rare earth demand was on the decline. Some NdFeB magnets plants made cutbacks greatly or even had been out of production, which leaded PrNd mischmetal price to drop continuously to around RMB130,000/t. Meanwhile, neodymium metal demand kept weak in both domestic and export markets, and the market saw few deals.

In October, rare earth market sources may enjoy seven days' holidays, so some NdFeB magnets began to replenish stocks, which pushed PrNd mischmetal price up to around RMB140,000/t lasting only for half a month, then fell back again. Most rare earth plants made cutbacks or stopped production gradually, as the whole rare earth market was sluggish. The slowdown of global economy accelerated the decline of PrNd mischmetal price. Both export and domestic markets are retreating continuously. At the same time, Wukuang (Ganzhou) Rare Earth Company (which was made up of China Minmetals Non-ferrous Metals Co., Ltd, Ganxian Hongjin Rare Earth Co., Ltd and Dingnan Dahua

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New Material Co., Ltd) and Inner Mongolia Baotou Steel International Trade Company (which is set up by Inner Mongolia Baotou Steel Rare Earth Hi-tech Co., Ltd, Baotou Huamei Rare Earth Hi-tech Co., Ltd, Zibo Baotou Steel Lingzhi Rare Earth Hi-tech Co., Ltd, Inner Mongolia Baotou Hefa Rare Earth Co., Ltd. and other co-sponsors) were set up to integrate the rare earth markets in South China and North China respectively. Meanwhile, Ganzhou government held a tel-conference of promoting a steady and fast development of industry on 2nd of December, 2008. However, the whole rare earth market remained soft. PrNd mischmetal and neodymium metal prices had dropped around 40 percent and 32 percent respectively in the last quarter of 2008, and the market saw not many activities. Most NdFeB magnets plants had made cutbacks around 50% and even closed down.

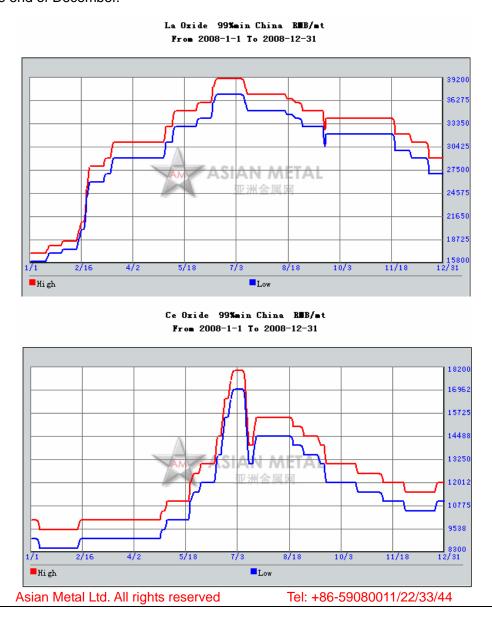




## 2.2 LaCe markets

During the previous two quarters, lanthanum and cerium products prices were still on the rise, as plants in Sichuan were still out of production. Pushed by the increasing demand of catalyst, functional materials and battery industries, lanthanum oxide price went up quickly. Another reason was that oil price increased continuously. In September, some plants in Sichuan had begun to resume production, which eased lanthanum and cerium products supply with price dropped slightly. In the last quarter, world economic crisis became worse, and oil price decreased, which pushed lanthanum oxide price to fall for the weak demand. However, cerium oxide demand kept stable, though the price dropped accordingly. Meanwhile, cerium related products demand is also good.

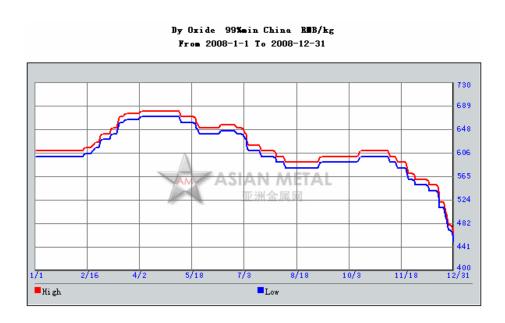
Lanthanum oxide and cerium oxide prices reached the high level of RMB39,000/t and RMB15,000/t respectively in June, and dropped to around RMB27,000/t and RMB12,000/t till the end of December.



#### 2.3 Others

During the previous quarters of 2008, some rare earth plants in Ganzhou halted furnaces for environmental friendly, and dysprosium oxide supply showed a little tight, with the price increased to around RMB640/kg from RMB600/kg till June. In July, the price of ion rare earth concentrate in Jiangxi and Guangdong dropped continuously, which leaded dysprosium oxide price to fall accordingly. When it turned to August, rare earth plants had made cutbacks one after another, due to the soft rare earth market, especially PrNd products. Therefore, dysprosium oxide supply became tight, and some plants in Jiangsu were grudging in selling the material, which pushed the price go back. In September and October, dysprosium oxide price was still haunting at around RMB600/kg. The last two months of 2008, dysprosium oxide market remains soft, as ferrodysprosium 80% Dy export market retreated.

As the main material of rare earth phosphor powder, terbium oxide 99.99%, europium oxide 99.99% and yttrium oxide 99.999% prices appeared divisions. In which, terbium oxide 99.99% and yttrium oxide 99.999% price continued the downwards tendency for the excessive stocks. On the other hand, europium oxide 99.99% price was still on the rise, because the supply was tight and demand kept stable. At last, europium oxide 99.99% price also decreased mildly in December, as YEu oxide export market retreated and the world economic crisis became worse. The price fell to around RMB2,100/kg from the high point of RMB2,800/kg.



## 3. Supply & Demand

#### 3.1 Production status

	Chinese rare earth ore output and structure in 1998-2007(REO,tons)												
RE ore Years	Baotou ore	Ion rare earth concentrate	Bastnaesite	Monazite	Xenotime	Total							
1998	41500	12000	9815		—	65000							
1999	42000	13000	15000	800	100	70000							
2000	40600	19500	12900		100	73000							
2001	46600	19200	10400	4000	400	80600							
2002	55400	20000	13000		—	88400							
2003	54000	23000	15000		_	92000							
2004	46600	30000	21700		—	98300							
2005	49000	44000	25709			118709							
2006	50377	45129	37000			13250 9							
2007	69000	45000	6800			12080 0							

Chinese government has begun to carry out of quotas administration to control rare earth export in order to protect our rare earth resources. In recent years, Chinese government made out a series of policies and regulations, such as rare earth production restrictions, guidance production transferred to mandatory production, cancelling export rebates and levying tax on other rare earth products, which have not been taxed previously, to protect the rare earth resources further, and promote the rapid and sound development of the industry.

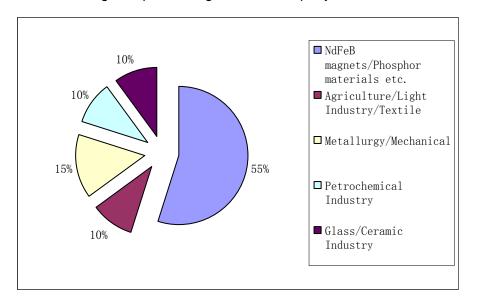
According to the Chinese Ministry of Land and Resources, as rare earth mining in Sichuan had still been out of production in 2008, the guideposts of rare earth production are 86520 tons and 87020 tons respectively in 2006 and 2007. In which, heavy rare earth are 8320 tons and 8820 tons respectively in 2006 and 2007, and light rare earth are 78200 tons in both years (46000 tons were distributed to Inner Mongolia). In 2008, China carried out the previous policies to protect rare earth resources, and consolidate the rare earth market in

South China. Meanwhile, rare earth mining had been out of operation in Sichuan.

## 3.2 Consumption status

As Chinese industrial progress and the transition of economic development means, especially the development of information, environment friendly, energy-saving, new resources, and other fields, rare earth industry gets more opportunity to develop. In traditional fields, the application of rare earth keeps the rising tendency, and in these update new material fields, its consumption is also on the rise.

In our rare earth consumption constitution, rare earth consumption in the following five fields increases quickly. They are NdFeB magnets, hydrogen-deposited, polishing powder, fluorescent materials and car exhaust gas purifying materials. The consumption in the previous four industries goes up at average rate of 20% per year.



## 3.3 Export status

#### 3.3.1 Licensed enterprises list for rare earth export in 2008 and 2009

The number of licensed enterprises for rare earth export in 2009 is 23, down by around two compared that in 2008. In which, Changshu Shengchang Rare Earth Smeltery and Ganzhou Chenguang Rare Earth New Material Co., Ltd are added to the list of licensed enterprises for rare earth export in 2008 later. Deqing Xing Bang Rare Earth New Material Co., Ltd, JMET Corp., Jiangsu Sainty International Group and Jiangxi Huatian Nonferrous Metals Co., Ltd have taken the place of Yantai Pengyu Industry & Trade Co., Ltd, Baotou

Jingrui New Materials Co., Ltd, Guangdong Zhujiang Rare Earth Co., Ltd, Ganxian Hongjin Rare Earth Co., Ltd and Zibo Baotou Steel Lingzhi Rare Earth Hi-tech Co., Ltd to get the export rare earth in 2009.

Itomo	Licensed enterprises list for rare earth	Licensed enterprises list for rare earth
Items	export in 2008	export in 2009
1	Sinosteel Corporation	Sinosteel Corporation
2	China Minmerals Non-ferrous Metals Co., Ltd	China Minmerals Corporation
		China National Nonferrous Metals Imp.&
3	China Metallurgical Imp.& Exp. Guangdong	Exp. Corporation Jiangsu Branch (JMET
	Company	Corp., Jiangsu Sainty International Group
		included )
	China National Nonferrous Metals Imp.&	Guangdong Rising Nonferrous Metals
4	Exp. Jiangsu Company	Group Co., Ltd (China Metallurgical Imp. &
		Exp. Guangdong Company included)
5	Guangdong Guangsheng Nonferrous	Inner Mongolia Baotou Steel Rare Earth
	Metals Imp.& Exp Co., Ltd	Hi-Tech Co., Ltd
6	Inner Mongolia Baotou Steel Rare Earth	Jiangsu Geo Quin Nano Rare Earth Co., Ltd
	Hi-tech Co., Ltd	
7	Zibo Baotou Steel Lingzhi Rare Earth Hi-tech Co., Ltd	Baotou Huamei Rare Earth Hi-tech Co., Ltd
		Inner Mongolia Hefa Rare Earth Science &
8	Yantai Pengyu Industry & Trade Co., Ltd	Technology Development Co., Ltd
9	Jiangsu GeoQuin Nano Rare Earth Co., Ltd	Grirem Advanced Materials Co., Ltd
10	Baotou Huamei Rare Earth Co., Ltd	Gansu Rare Earth New Material Co., Ltd
44	Inner Mongolia Hefa Rare Earth Science &	Ganzhou Qiandong Industry (Group) Co.,
11	Technology Co., Ltd	Ltd
12	Youyan Rare Earth New Materials Co., Ltd	Yiyang Hongyuan Rare Earth Co., Ltd
		Jiangxi Golden Century Advanced
13	Baotou Jingrui New Materials Co., Ltd	Materials Co., Ltd (Jiangxi Huatian
		Nonferrous Metals Co., Ltd included)
14	Gansu Rare Earth New Materials Co., Ltd	Funing Rare Earth Industry Co., Ltd
15	Ganzhou Qiandong Industry (Group) Co.,	Dengqing Xing Bang Rare Earth New
	Ltd	Material Co., Ltd
16	Yiyang Hongyuan Rare Earth Co., Ltd	Jiangxi South Rare Earth Hi-tech Co., Ltd
17	Jiangxi Golden Century Advanced Materials	Leshan Shenghe Rare Earth Technology
	Co., Ltd	Co., Ltd
18	Guangdong Zhujiang Rare Earth Co., Ltd	Xian Xijun New Materials Co., Ltd
19	Funing Industry Co., Ltd	Changshu Shengchang Rare Earth
		Smeltery
20	Jiangxi South Rare Earth Hi-tech Co., Ltd	Ganzhou Chenguang Rare Earth New
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		Material Co., Ltd
21	Ganxian Hongjin Rare Earth Co., Ltd	
22	Leshan Shenghe Rare Earth Science Co., Ltd	
23	Xi'an Xijun New Materials Co., Ltd	

# 3.3.2 List of export quotas for the licensed enterprises in 2008 and 2009

The total export quotas for rare earth are 34156 tons in 2008, and the first export quotas for the licensed enterprises are 22780 tons. The first export quotas for the licensed enterprises in 2009 are 15043 tons, down by 7737 tons compared with those of the same period last year. What is more, the export quotas got by the enterprises, which specializes in exporting, are decreasing, and those got by rare earth plants are increasing.

List of	the 1st export	quotas for	List of	the 2nd export	quotas for	List of	f the 1st export	quotas for
the lice	nsed enterpris	es in 2008	the lice	ensed enterpris	es in 2008	the lic	ensed enterpris	es in 2009
Item	Enterprises	Amount (mt)	Item	Enterprises	Amount (mt)	item	Enterprises	Amount (mt)
1	Sinosteel Corporatio n	1603	1	Sinosteel Corporation	685	1	Sinosteel Corporation	1024
2	China Minmetals Non-ferrou s Metals Co.,Ltd	1978	2	China Minmetals Non-ferrous Metals Co., Ltd	885	2	China Minmetals Corporation	1373
3	China Metallurgic al Imp.& Exp. Guangdon g Company	672	3	China Metallurgica I Imp.& Exp. Guangdong Company	293	3	China National Nonferrous Metals Imp. & Exp. Corporation Jiangsu Branch	934
4	China National Nonferrous Metals Imp. & Exp. Corporatio n Jiangsu Branch	1195	4	China National Nonferrous Metals Imp. & Exp. Corporation Jiangsu Branch	519	4	Guangdong Rising Nonferrous Metals Group Co., Ltd	951

5	China National Nonferrous Metals Imp.& Exp. Guangdon g Company	810	5	Guangdong Rising Nonferrous Metals Group Co., Ltd	354	5	Changshu Shengchang Rare Earth Smeltery	218
6	Yantai Pengyu Industry & Trade Co., Ltd	609	6	Yantai Pengyu Industry & Trade Co., Ltd	270	6	Jiangsu Geo Quin Nano Rare Earth Co., Ltd	270
7	Jiangsu Geo Quin Nano Rare Earth Co., Ltd	335	7	Changshu Shengchan g Rare Earth Smeltery	105	7	Jiangxi Golden Century Advanced Materials Co., Ltd	591
8	Jiangxi Golden Century Advanced Materials Co., Ltd	635	8	Jiangsu Geo Quin Nano Rare Earth Co., Ltd	147	8	Inner Mongolia Hefa Rare Earth Science & Technology Co., Ltd	742
9	Inner Mongolia Hefa Rare Earth Science & Technology Co., Ltd	1407	9	Jiangxi Golden Century Advanced Materials Co., Ltd	290	9	Jiangxi South Rare Earth Hi-tech Co., Ltd	794
10	Jiangxi South Rare Earth Hi-tech Co., Ltd	789	10	Inner Mongolia Hefa Rare Earth Science & Technology Co., Ltd	658	10	Ganzhou Chenguang Rare Earth New Material Co., Ltd	642
11	Ganxian Hongjin Rare Earth Co., Ltd	151	11	Jiangxi South Rare Earth Hi-tech Co.,	357	11	Ganzhou Qiandong Industry (Group) Co.,	500

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ĺ				Ltd			Ltd	
12	Ganzhou Qiandong Industry (Group) Co., Ltd	628	12	Ganzhou Chenguang Rare Earth New Material Co., Ltd	1134	12	Grirem Advanced Materials Co., Ltd	639
13	Zibo Baotou Steel Lingzhi Rare Earth Hi-tech Co., Ltd	1090	13	Ganxian Hongjin Rare Earth Co., Ltd	69	13	Yiyang Hongyuan Rare Earth Co., Ltd	619
14	Grirem Advanced Materials Co., Ltd	986	14	Ganzhou Qiandong Industry (Group) Co., Ltd	294	14	Baotou Huamei Rare Earth Hi-tech Co., Ltd	1193
15	Yiyang Hongyuan Rare Earth Co., Ltd	1119	15	Zibo Baotou Steel Lingzhi Rare Earth Hi-tech Co., Ltd	493	15	Inner Mongolia Baotou Steel Rare Earth Hi-tech Co., Ltd	1048
16	Guangdon g Zhujiang Rare Earth Co., Ltd	417	16	Grirem Advanced Materials Co., Ltd	443	16	Xi'an Xijun New Materials Co., Ltd	502
17	Baotou Jingrui New Materials Co.,Ltd	142	17	Yiyang Hongyuan Rare Earth Co., Ltd	487	17	Gansu Rare Earth New Materials Co., Ltd	1133
18	Baotou Huamei Rare Earth Hi-tech Co., Ltd	1903	18	Guangdong Zhujiang Rare Earth Co., Ltd	182	18	Leshan Shenghe Rare Earth Science Co., Ltd	987
19	Inner Mongolia Baotou Steel Rare	945	19	Baotou Jingrui New Materials Co., Ltd	60	19	Funing Rare Earth Industry Co., Ltd	566

	Earth Hi-tech Co., Ltd							
20	Xi'an Xijun New Materials Co., Ltd	616	20	Baotou Huamei Rare Earth Hi-tech Co., Ltd	849	20	Dengqing Xing Bang Rare Earth New Material Co., Ltd	317
21	Gansu Rare Earth New Materials Co., Ltd	2164	21	Inner Mongolia Baotou Steel Rare Earth Hi-tech Co.,	419		Total	15043
22	Leshan Shenghe Rare Earth Science Co., Ltd	1920	22	Xi'an Xijun New Materials Co., Ltd	273			
23	Funing Rare Earth Industry Co., Ltd	666	23	Gansu Rare Earth New Materials Co., Ltd	950			
	Total	22780	24	Leshan Shenghe Rare Earth Science Co., Ltd	868			
			25	Funing Rare Earth Industry Co., Ltd Total	292 11376			

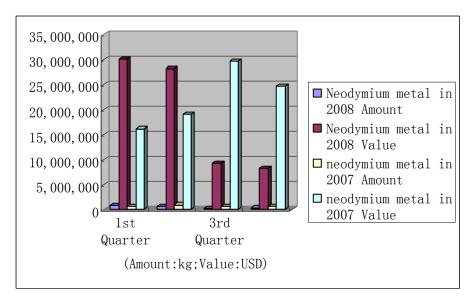
# 3.3.3 Rare earth products export quota for foreign-invested enterprises in 2008

There are eleven foreign-invested enterprises, which are approved to export rare earth in 2008, and have 8210.5 tons of rare earth products export quotas, in which, 4060.5 tons of rare earth oxide, 3075 tons of rare earth salts and 1075 tons of rare earth metal.

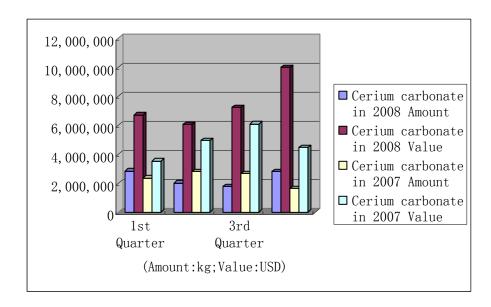
Rare Earth Products Export Quota for Foreign-invested Enterprises in 2008

	Enterprises		
States	Enterprises	Quotas	Notes
		(ton)	
	Jiangyin Jiahua Advanced Material	950	REO
Jiangsu	Resources Co., Ltd.		
	Liyang Rhodia Rare Earth New	540	REO 200 tons, RE Salts 325
	Materials Co., Ltd.		tons, RE Metal 15 tons
	Yixing Xinwei Leeshing Rare Earth Co.,	1000	REO
	Ltd.		
Guangdong	Pingyuan Sanxie Rare Earth Smelting	170	REO 10 tons, RE Salts 100
	Co., Ltd.		tons, RE Metal 60 tons
Anhui	Polar Beam Technologies (Hefei) Inc.	0.5	REO
	Baotou Tianjiao SeiMi Polishing	450	RE Salts 200 tons, REO 250
Inner	Powder Co., Ltd.		tons
Mongolia	Baotou Rhodia Rare Earth Co., Ltd.	1850	REO 1000 tons, RE Salts 800
			tons, RE Metal 50 tons
	Huhhot Rongxin New Metal Smelting	550	RE Metal 250 tons, REO 300
	Co., Ltd.		tons
	Baotou Huaxin Smelting Co., Ltd.	200	RE Metal
	Baotou Santoku Battery Materials Co.,	250	RE Metal
	Ltd.		
Shandong	Zibo Jiahua Advanced Material	2250	REO 350 tons, RE Salts 1650
	Resources Co., Ltd.		tons, RE Metal 250 tons
Total		8210.5	

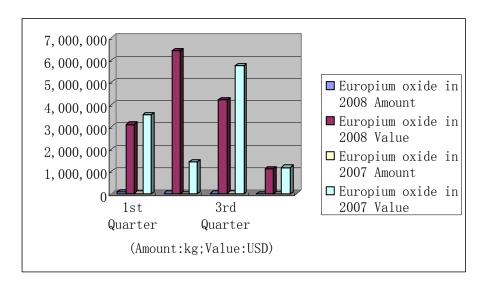
# 3.3.4 The export statistics for parts of Chinese rare earth products Jan - Nov in 2007 and 2008



The export amount of each quarter for neodymium metal in 2007 had not many changes, but the price continued to increase in general. In 2008, as European countries and Japan were influenced a lot by the world economic crisis, neodymium metal demand retreated greatly, with the export amount and price falling together month by month. Another reason is that foreign consumers still had stocks of the material at hand.



In 2007, cerium carbonate export amount and value showed the rising tendency generally. In 2008, as the global economy slowed down, rare earth products export market became soft to most extent, but cerium carbonate kept stable, and maintained the rising tendency. Meanwhile, cerium oxide and cerium related products export markets were also stable relatively.



Nowadays, rare earth energy-saving light is promoted to replace the traditional incandescent lamp globally, because rare earth energy-saving light can achieve the same effect of illumination by only using the 20 percent of electricity. Japan, Korea and other

countries have done this earlier. With the hope of reducing greenhouse gas emissions, North America and Austria have made out laws and legislations to prohibit using the traditional lights one after another, which leaded europium oxide demand to increase, and pushed the price to go up further. Unfortunately, under the influence of the global economic crisis, europium oxide export market began to retreat in the last quarter of 2008.

	The export statistics for parts of Chinese rare earth products Jan - Nov in 2008  (Amount : kilogram Value : US dollar)													
	T				1		ı		T					
		in 2008		in 2008		in 2008		in 2008		tal				
	Amount	Value	Amount	Value	Amount	Value	Amount	Value	Amount	Value				
Neo	834,30	30,130,	698,62	28,227,	305,60	9,347,2	354,30	8,315,4	2,192,8	76,019,				
dym	0	053	0	108	0	96	0	80	20	937				
ium														
met														
al														
Dys	1080	144,16	120	12,000	250	42,050	180	12,600	1,630	210,81				
pros		9								9				
ium														
met														
al														
Ceri	666,20	2,790,6	278,86	1,683,7	475,28	3,127,5	571,89	3,543,2	1,992,2	11,145,				
um	0	44	0	78	0	47	8	43	38	212				
oxid														
е														
Ceri	2,838,6	6,734,6	2,019,6	6,070,9	1,766,9	7,255,5	2,796,0	10,027,	9,421,2	30,088,				
um	89	34	10	02	21	86	20	408	40	530				
carb														
onat														
е														
Yttri	512,48	6,973,0	328,26	2,788,6	387,17	5,879,6	178,38	2,529,4	1,406,2	18,170,				
um	0	32	0	31	1	70	8	43	99	776				
oxid														
е														
Lant	2,616,3	15,029,	2,816,8	23,121,	2,626,9	23,109,	1,843,8	15,955,	9,903,9	77,216,				
han	07	730	80	852	62	142	50	409	27	133				
um														
oxid														
е														
Neo	291,53	8,854,9	162,79	5,537,2	169,59	5,011,3	69,450	1,629,2	693,36	21,032,				
dym	0	66	0	55	0	96		93	0	883				
ium														
oxid														
е														

Eur	83,925	3,114,5	13,398	6,407,4	8,938	4,238,0	2,226	1,119,9	108,48	14,880,
opiu		45		61		30		66	7	002
m										
oxid										
е										

The export statistics for parts of Chinese rare earth products Jan - Nov in 2007

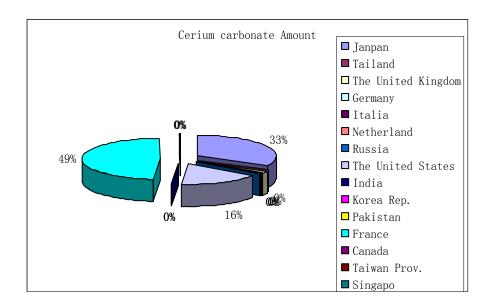
	(Amount : kilogram Value : US dollar)									
	Jan-Mar	in 2007	Apr-Jun	in 2007	Jul-Sep	in 2007	Oct-Nov	in 2007	То	tal
	Amount	Value	Amount	Value	Amount	Value	Amount	Value	Amount	Value
Neo	624,41	16,176,	978,22	19,151,	671,05	29,711,	655,01	24,704,	2,928,7	89,743,
dym	5	777	4	117	0	186	8	031	07	111
ium										
met										
al										
Dys	4,400	397,76	45,920	3,723,6	5,530	521,03	85	10,600	55,935	4,653,0
pros		3		93		0				86
ium										
met										
al										
Ceri	488,87	1,388,5	735,99	2,270,1	774,40	2,933,6	452,84	1,806,1	2,452,1	8,398,3
um	0	24	0	10	0	00	0	00	00	34
oxid										
е										
Ceri	2,367,9	3,533,0	2,802,7	4,956,5	2,687,2	6,114,2	1,652,3	4,488,1	9,510,2	19,092,
um	98	34	20	47	80	95	00	27	98	003
oxid										
е										
Yttri	356,17	5,381,0	731,45	6,632,7	742,28	7,818,0	436,12	5,684,4	2,266,0	25,516,
um	5	65	7	15	0	45	0	28	32	253
oxid										
е										
Lant	986,71	3,035,0	2,034,1	6,826,9	2,060,6	8,226,2	1,689,6	7,5901	6,771,1	25,678,
han	0	89	53	35	94	93	28	13	85	430
um										
oxid										
е										
Neo	266,65	6,062,9	358,88	9,237,2	268,32	9,323,9	116,41	3,867,2	1,010,2	28,491,
dym	5	12	4	67	0	90	5	68	74	437
ium										
oxid										
е										
Eur	13,614	3,557,8	5,284	1,432,2	16,214	5,744,0	3,550	1,185,3	38,662	11,919,
opiu		35		82		51		75		543
m										

oxid					
е					

# 3.3.5 Rare earth products exports in 2008

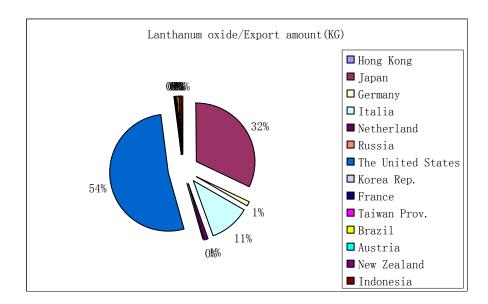
Item	Neodymium metal		
States	Amount (KG)	Value (USD)	
Hongkong	100	5,000	
Janpan	2,396,234	79,686,369	
Tailand	1,700	55,698	
United Arab Emirates	3,500	55,500	
The United Kingdom	12,500	436,604	
Germany	121,000	4,311,252	
Italia	500	20,879	
Netherland	2,000	52,808	
Finland	500	23,250	
Russia	9,700	308,270	
The United States	15,120	561,441	

Based on the above table, it is undoubted that Japan is the biggest country in terms of neodymium metal consumption. The amount of neodymium metal exported to Japan makes up around 94 percent of the total export amount.



Cerium carbonate was mainly exported to France, Japan and American in 2008. In which, France is the country, which imported the most of cerium carbonate from China, and

whose amount is around 49 percent of the total amount.



From the point of export amount of lanthanum oxide, the top three consumption countries are America, Japan and Italia, with the proportion of around 54 percent, 32 percent and eleven percent respectively.

Item States	Dysprosium metal		Cerium carbonate		Yttrium oxide		Lanthanum oxide		Neodymium oxide	
	Amount	Value	Amount	Value	Amount	Value	Amount	Value	Amount	Value
Hong Kong					48,080	382,088	8,350	51,676		
Japan	100	16,700	4,051,9	16,748,	871,700	13,547,	3,624,5	32,789,	533,860	14,168,
			81	169		093	50	319		408
Thailand			1,400	6,800	6,750	52,160				
The United	800	108,889	240,400	668,837	13,000	136,452			34,000	979,200
Kingdom										
Germany			8,000	44,000	17,719	239,607	105,270	1,175,0	11,680	347,922
								32		
Italia			31,300	116,758	202,000	2,843,7	1,247,0	9,760,6	49,400	1,352,8
						83	00	28		28
Netherland			5,000	12,300	27,920	428,664	140,200	1,098,8	79,500	2,214,2
								50		06
Russia	480	47,880	35,000	87,500	11,000	78,640	3,000	39,920		
The United			2,031,7	6,609,7	348,480	4,236,7	5,900,7	40,571,	60,450	1,718,6
States			50	10		14	07	265		91
India	100	12,000	3,000	16,611	600	7,281			150	5,070
Korea Rep.	150	25,350	5,300	23,871	26,320	478,223	31,710	211,787	4,270	113,020
Pakistan			500	847						
France			6,014,7	15,191,	13,900	172,177	14,240	186,800	61,380	1,966,2

	59	304						36
Canada	40,650	167,770						
Taiwan	10,000	14,000	14,160	344,111	22,850	198,904	4,200	110,992
Prov.								
Singapore	1,000	7,040						
Belgium			480	5,904				
Brazil					40,000	220,000		
Austria			3,000	51,400	500	5,655	11,000	131,910
New					400	4,467		
Zealand								
Indonesia					100,000	658,883		
Ukraine			2,100	25,672			10	390
S.Africa							10,000	205,685
Czech Rep.							500	15,650
Mexico							7,560	238,140

# 3.3.6 China keeps rare earth export tariff unchanged in 2009

The previous 29 kinds of rare earth products' tax will keep stable in 2009, but ferrodysprosium and NdFeB magnets will be added 20 percent of export tax, which have begun to carry out since on 1<sup>st</sup> December, 2008.

Item	Ex	Tariff	Article	Export	Interim tariff	Special tariff
		Item		tariff (%)	in 2009(%)	in 2009 (%)
1		28053011	Neodymium		15	
2		28053012	Dysprosium		25	
3		28053013	Terbium		25	
4		28053019	Other unmixed or fused rare earth metal; scandium and yttrium		25	
5		28053021	Battery mixed or fused rare earth metal; scandium and yttrium		25	
6		28053029	Mixed or fused rare earth metal; scandium and yttrium		25	
7		28461010	Cerium oxide		15	

8		28461020	Cerium hydroid	15	
9		28461030	Cerium carbonate	15	
10		28461090	Other cerium compounds	15	
11		28469011	Yttrium oxide	25	
12		28469012	Lanthanum oxide	15	
13		28469013	Neodymium oxide	15	
14		28469014	Europium oxide	25	
15		28469015	Dysprosium oxide	25	
16		28469016	Terbium oxide	25	
17	ex	28469019	Other rare earth oxide (red powder excluded)	15	
18		25309020	Rare earth metal ore	15	
19		28469021	Terbium chloride	25	
20		28469022	Dysprosium chloride	25	
21		28469028	Mixed rare earth chloride	15	
22		28469029	Unmixed rare earth chloride	15	
23		28469030	Rare earth fluoride	15	
24		28469041	Lanthanum carbonate	15	
25		28469042	Terbium carbonate	25	
26		28469043	Dysprosium carbonate	25	
27		28469048	Mixed rare earth carbonate	15	
28		28469049	Unmixed rare earth carbonate	15	
29		28469090	Rare earth metal; yttrium; other scandium	25	

		com	nounde		1	l
		COIII	pounds		1	ı

#### 4. 5. Outlook about rare earth market in 2009

Some policies, such as expanding rare earth market, promoting rare earth application, protecting rare earth resources, exploring rare earth mines reasonably, controlling the output, adjusting rare earth structure and so on, were implemented in 2008, and some good results have been achieved, for example, rare earth structure improved, and the steady production, etc. Meanwhile, some new areas for rare earth application have been founded, taking NdFeB magnets industry for example. However, there are still some problems needed to solve.

In 2009, rare earth will be used in NdFeB magnets industry and rare earth phosphor powder industry widely.

Commenting on the rare earth market in 2009, market sources think that it is still unclear at present.

On one hand, Inner Mongolia Baotou Steel Rare Earth International Trade Company began to rectify the north rare earth market by the way of selling rare earth products integrate. On the other hand, Guangzhou government called on stopping exploring rare earth mining. Additionally, Chinese government began to reserve mineral resources and make out some policies to help small and medium-sized enterprises get through the financial crisis and solve the difficulty in financing problems.

However, most participants anticipate that the possibility for rare earth market to rebound in the previous two quarters of 2009 is small, and the market may become a little better when it turns to the third quarter.