



Review and Prospect of China EMM Industry in 2007

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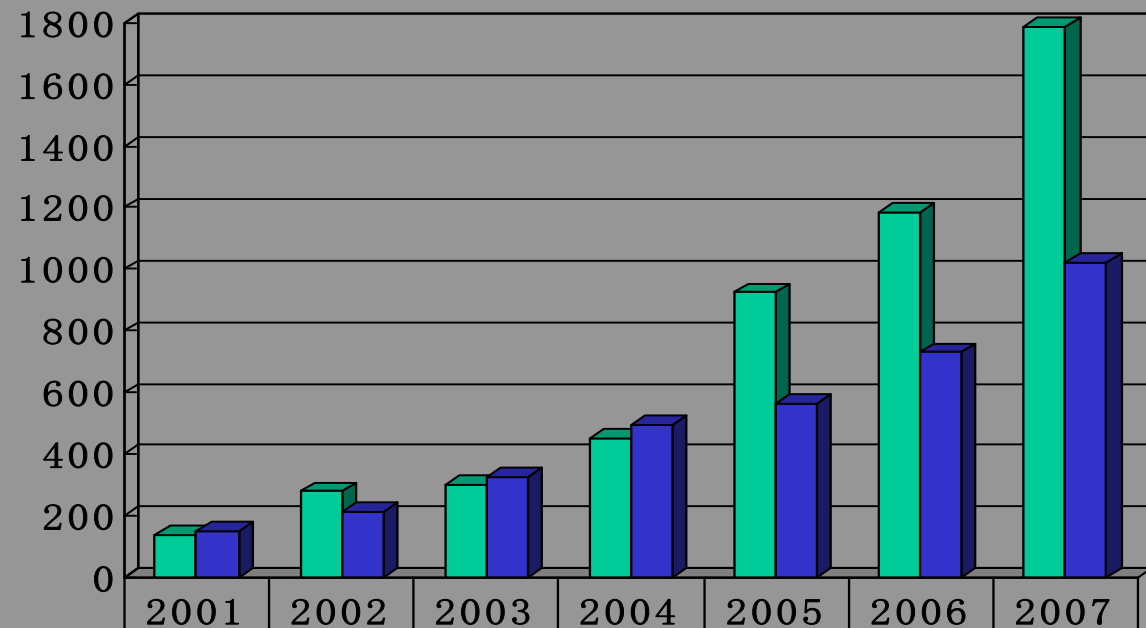
2008. 5

The image features a decorative title 'Review' centered on a yellow, semi-circular banner with a floral pattern. The banner is set against a background of misty, layered mountains. On the left side, there is a vertical red bar with a dark, textured pattern. The overall composition is clean and visually appealing.

Review

Review

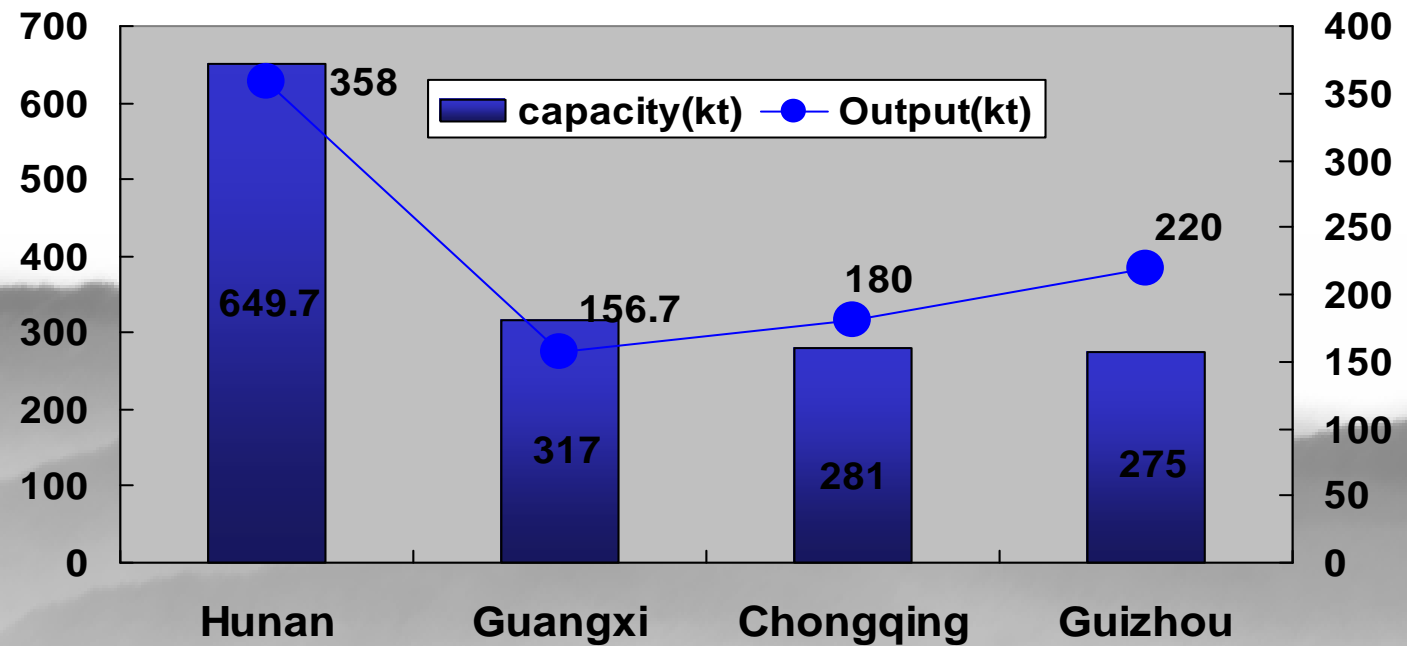
- ❁ It was the 2007 that the electrolytic manganese in China developed fastest, production capacity increased 599.20kt compared with that of last year, up nearly 40%. The output reached 1024.00kt, up 291.40kt compared with that of last year, up by 39.78% compared with the same period last year.
- ❁ Chart of China's electrolytic manganese production capacity and output from 2001 to 2007



■ 能力 (kt)	140	280	300	450	925.5	1187	1786
■ 产量 (kt)	151.7	212	325	494.3	566.4	730.2	1024

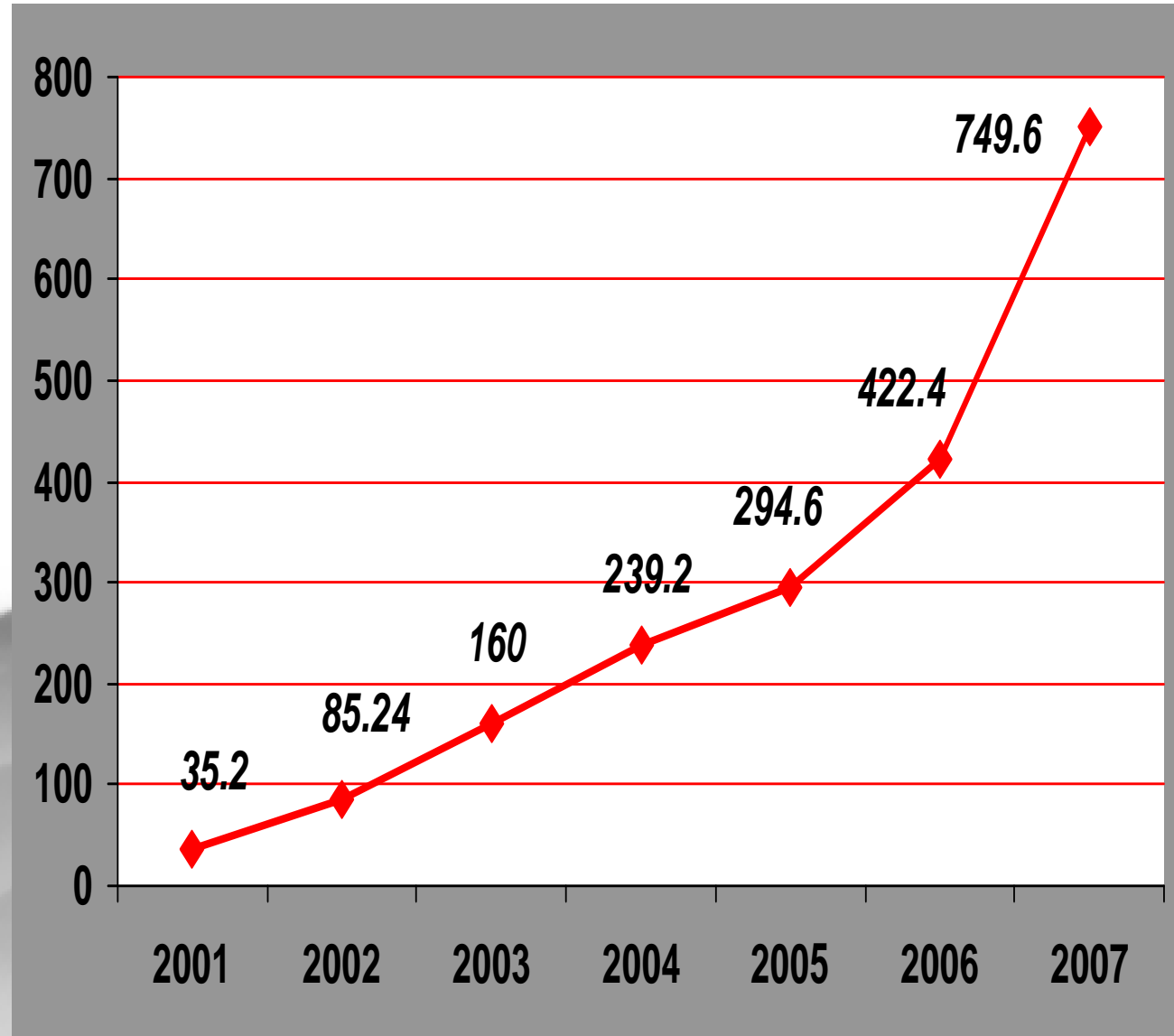
Review

- ❁ The number of large-scale enterprises increased obviously, The number of enterprises which are more than 30kt have already exceeded 13, the production capacity of DaMeng Citic DaMeng Mining Industries Limited, Ningxia Tianyuan Manganese Industry, and Hunan Tycoon Group have already exceeded 50kt, while the production capacity of DaMeng Citic Dameng Mining Industries Limited will exceed 100kt this year.
- ❁ Main provinces of electrolytic manganese



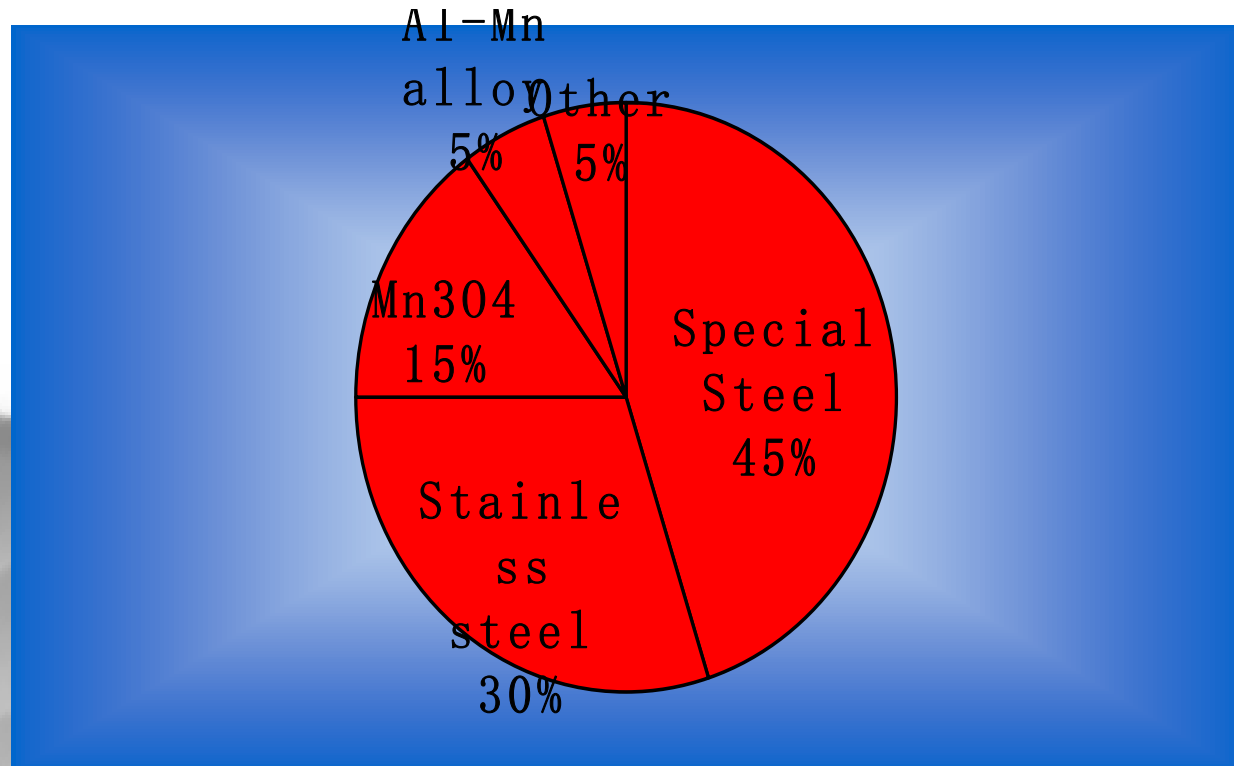
Review

- ❁ The volume of consumption of electrolytic manganese in China increased by a wide margin in 2007, it increased 327.20kt compared with that of last year, increasing degree is up to 77.40%
- ❁ The volume of consumption of electrolytic manganese in China from 2001 to 2007 (kt)



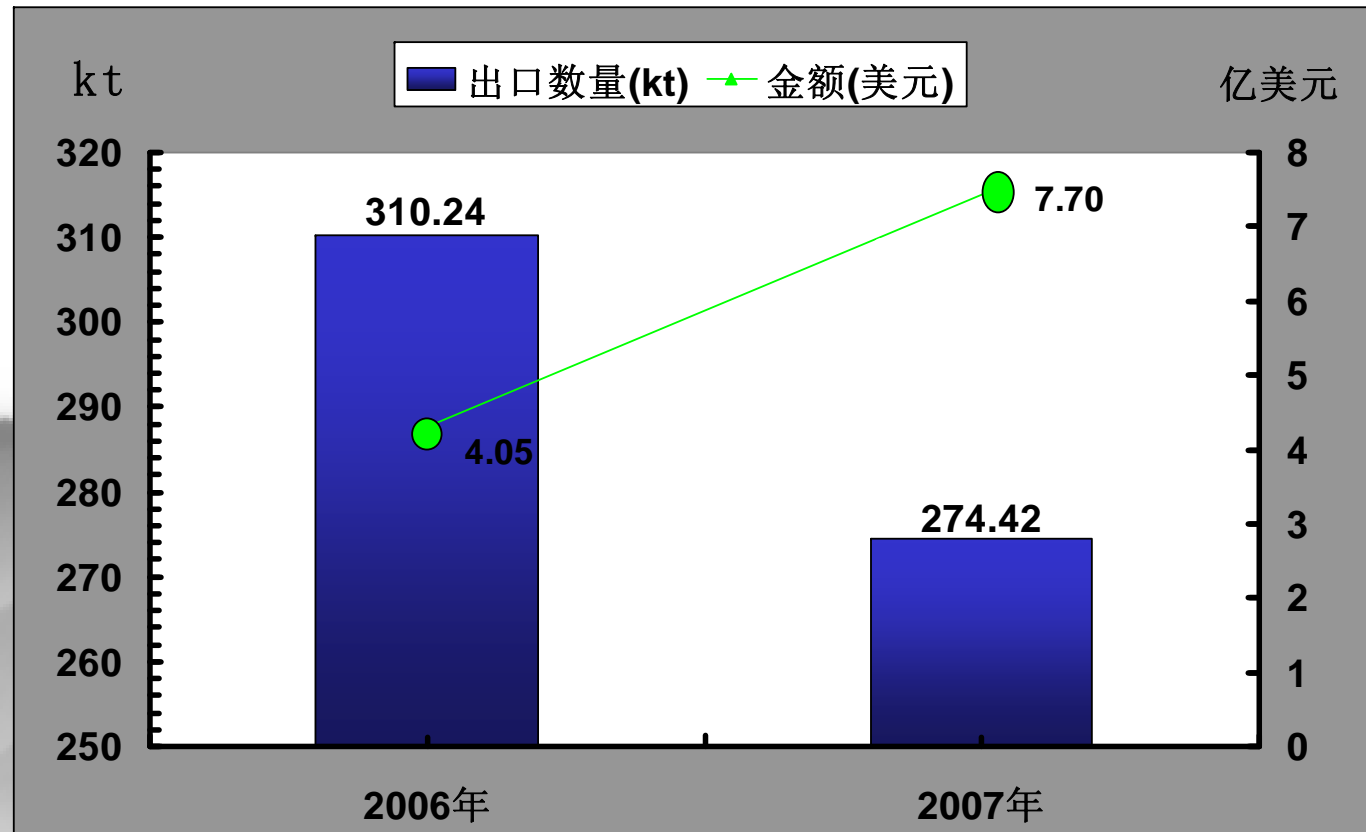
Review

- ❁ The market of the domestic electrolytic manganese mainly concentrates on special steel and alloy steel (about 45%), stainless steel (about 30%), manganic manganous oxide (about 15%), Mn-Al alloy (about 5%), and other (about 5%).



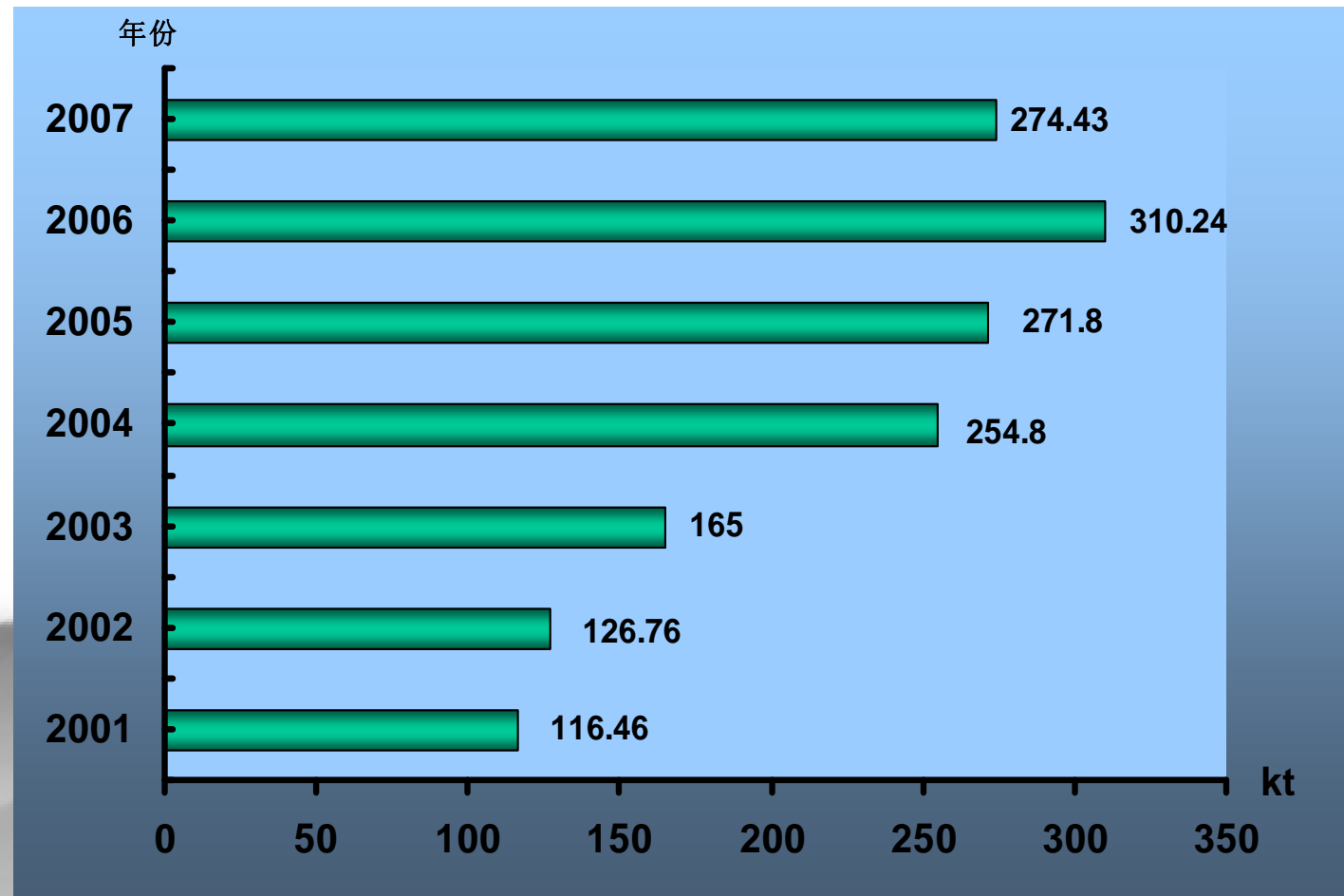
Review

- ❁ With U.S. dollar devalues, RMB appreciates, exporting taxes increases, and foreign medium-low carbon ferromanganese and silicothermic Mn metal's increase production and some other reasons, negative growth appeared in China's electrolytic manganese export in 2007, however, export value increased by a wide margin, increasing degree reached 90.12%.



Review

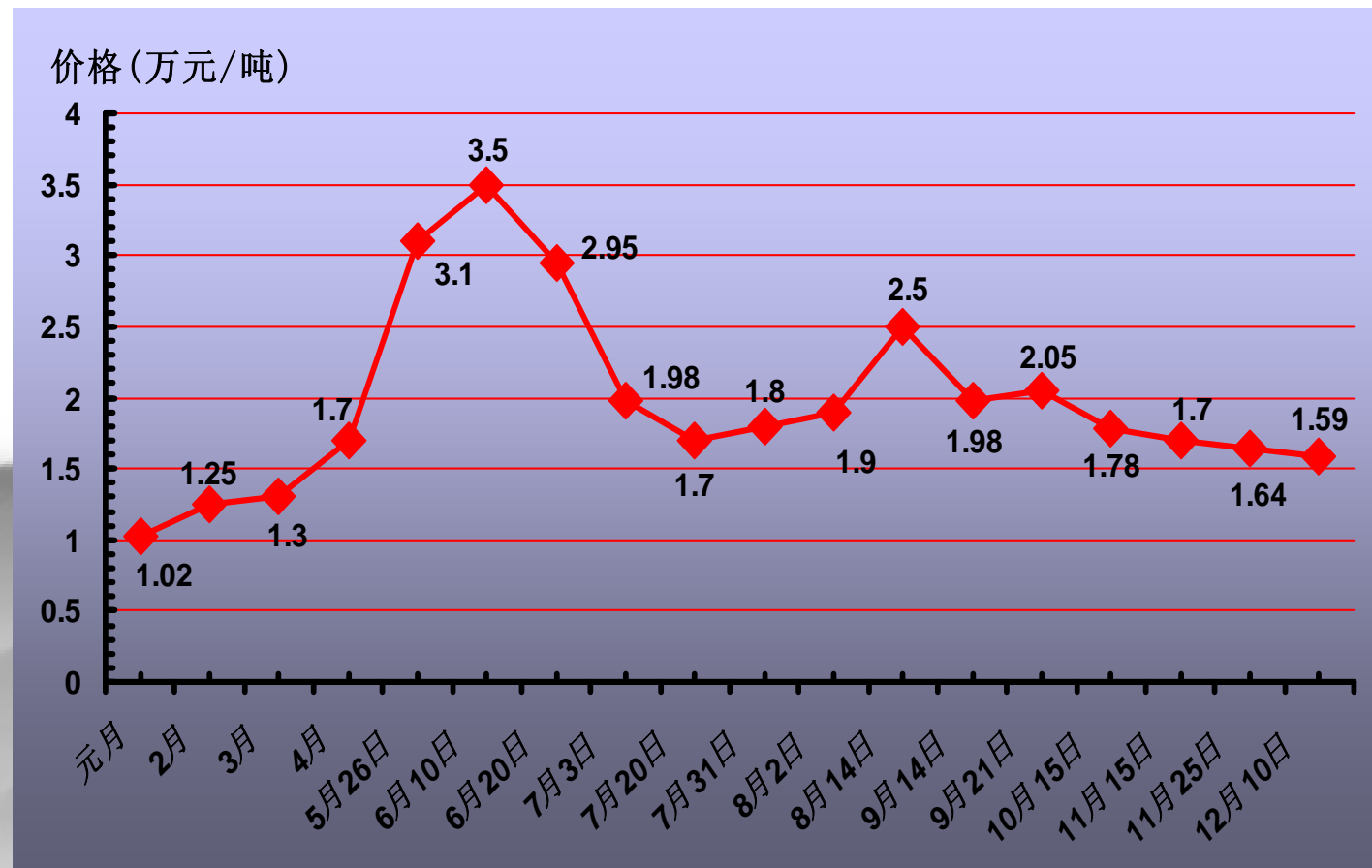
🌸 China's electrolytic manganese export 2001 to 2007 ✖️ (kt)



✖️ does not include the export quantum of silicothermic Mn metal

Review

- ❁ Influenced by many kinds of factors, the price of the electrolytic manganese in China fluctuated largely in 2007, the highs and lows differed by over 20,000 yuan / ton, achieved the top within 50 years.
- ❁ Market price change of the electrolytic manganese in China in January - December of 2007





Environment

Treatment

- ★ **Because the industry of electrolytic manganese will have waste water which contains chromium, selenium, manganese, ammonia and azote, so it is a “High Polluted” industry. After three years’ environmental improvement, depending on the progress of technologies and reinforcement of management, the industry of electrolytic manganese in China has improved a lot.**
- ★ **We have succeeded in researching the anti-chromium passivant and eliminate its danger.**
- ★ **A new type of highly effective and safe additive which can replace SeO_2 and SO_2 has also been researched, which can eliminate Se’s danger .**
- ★ **A new technique of utilizing the waste residue to make cement and bricks has also realized industrial production.**
- ★ **The waste water is reused after treated and realized the “Zero Discharge” of waste water.**

Main Problems

- ❁ **Because the main materials such as manganese ore and sulfuric acid are in short supply and the price remains high, it is becoming a “bottleneck” which will restrict the production of electrolytic manganese in China.**
- ❁ **The energy-saving and cost-reducing task is arduous**
- ❁ **Because of wearing out the equipments and energy consumption on a high side, many mid and small industries can hardly reach the fixed index of “entry terms”; at the same time, because the average grade of the ores drops to Mn15~16% and the recovery rate of metals also drops by a wide margin.**



Prospect

- ❁ **The development prospect of electrolytic manganese industry in China**
After several years' development, the production capacity of the electrolytic manganese industry in China has nearly reached 2000kt, will it be developed in such a pace in the future? On the basis of the analysis in the disposition of resources and market demand and so on, the pace will slow down and it is hard to recur the great development in 2007.
- ❁ **Hunan and Guangxi will be two of the key provinces in developing the industry of electrolytic manganese. The production capacity and quantity in this two provinces are both over 60%.**
- ❁ **The quantity of manganese ore supply in China will be the bottleneck restraining the development of electrolytic manganese.**

Prospect

- ❁ **U.S. dollar devalues, and RMB appreciates and increasing exporting taxes, cause more and more strict environmental protection requirement. Some enterprisers engaged in electrolytic manganese production in China are going out of the country, seeking the development of electrolytic manganese industry all over the world. It is estimated that the first electrolytic manganese factory which is built by Chinese and local enterprises will put into production after 2011.**
- ❁ **In the following 3 to 4 years, depending on the progress of science and technology, the production of the electrolytic manganese will realize low pollution and clean production, which can dispel the danger from selenium, chromium and waste water to the environment, and respectively and comprehensively use the effective composition in the waste residue.**

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