I-3 Phosphorus ore

- **Exploitation & consumption**

Table I-3-3 Output and apparent consumption of phosphorus ore in China, 1996-2007

	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
Output,'000 tonnes (calculated by P_2O_5, 30%)												
Apparent consumption, '000 tonnes												

Geographical distribution of yellow phosphorus in China

Table II-1-2 Output of yellow phosphorus in different regions in China in the past few years, tonne

Year	Yunnan	Guizhou	Sichuan	Hubei
1999				
2000				
2001				
2002				
2003				
2004				
2005				
2006				
2007				
2008				

II-2 Situation of major yellow phosphorus manufacturers in China

Overview of major yellow phosphorus manufacturers in China

Table II-2-1 Main yellow phosphorus manufacturers in China, Jan. 2009

Item	Manufacturer	Comment
Largest capacity	[redacted]	[redacted]
Largest output	[redacted]	[redacted]
Largest consumption	[redacted]	[redacted]
Largest sale volume	[redacted]	[redacted]

Table II-2-2 Top 4 yellow phosphorus manufacturers in China, by capacity, Jan. 2009 and the biggest advantage for each

Manufacture	Capacity, t/a	Share, %	Advantage
[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	

II-6 Competition strategy

Production cost control

Table II-5-2 Manufacturing cost of yellow phosphorus in China in Dec. 2008

	Items	Unit Consumption, /t	Price, USD/t	Cost, USD/t	Share in manufacturing cost
Average cost, USD/t	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
Cost in those with their own power plant and phosphorus mine	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]

[redacted] is the most important raw material for yellow phosphorus production, and the cost of [redacted]hgfjccounts for [redacted]jhgfjh of total production cost. When, the price of [redacted] increases USD0.01/KWh, the product cost of yellow phosphorus will increase [redacted]

……..

III-1 Overview of yellow phosphorus consumption

Table III-1.2-1 Yellow phosphorus consumption situation by province in China in 2008, tonne

Province	Thermal phosphoric acid	Phosphorus trichloride	Others	Total	Output of yellow phosphorus
Yunnan	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
Jiangsu	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
Sichuan	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
Guangxi	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
Hubei	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
Shandong	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
Guizhou	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
Zhejiang	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
Shanghai	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
Others	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
Total	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]

III-2.1.2 Overview of thermal phosphoric acid industry

Table III-2.1.2-1 Competition among different phosphoric acid in China

Title	Thermal	Wet-process	Kiln-process
Commercial output in 2007 (t)			
Purity			
Energy consumption, kg Standard coal/t			
Needed phosphorus ore			
Recovery rate of phosphoric			
Advantage			
Disadvantage			
Trend			

III-2.2.2 Overview of phosphoric trichloride industry

Table III-2.2.2-1 Glyphosate technical output and its PCl_3 consumption in China, 2001~2008, by different pathways

Year	Glyphosate, tonne				PCL3 consumption, tonne			
	AEA	DEA	IDAN	Total	AEA	DEA	IDA	Total
2001								
2002								
2003								
2004								
2005								
2006								
2007								
2008								

IV Import and export situation of yellow phosphorus in China

Table IV-1 Export and import situation of yellow phosphorus in China in the past few years: tonne

Year	Export volume ()	Import volume	Net export
1997			
1998			
1999			
2000			
2001			
2002			
2003			

2004	[redacted]	[redacted]	[redacted]
2005	[redacted]	[redacted]	[redacted]
2006	[redacted]	[redacted]	[redacted]
2007	[redacted]	[redacted]	[redacted]
2008	[redacted]	[redacted]	[redacted]

IV Import and export situation of yellow phosphorus in China

Table IV-3 Yellow phosphorus export situation of different provinces in China in 2008(Jan-Nov), tonne

Province	2008(Jan-Nov)	Output '08	Share
Yunnan	[redacted]	[redacted]	[redacted]
Sichuan	[redacted]	[redacted]	[redacted]
Guizhou	[redacted]	[redacted]	[redacted]
Hubei	[redacted]	[redacted]	[redacted]
Total	[redacted]	[redacted]	[redacted]

V Forecast on yellow phosphorus development in China, 2009~2013~2018

✓ **CCM's projection**

Low growth:

…….

Expected growth:

- CAGR of output in 2009-2013 will be [redacted], and that of 2014-2018 will be [redacted]
- CAGR of capacity in 2009-2013 will be [redacted], and that of 2014-2018 will be [redacted]
- [redacted] will decrease output&capacity by [redacted] annually.
- [redacted] will decrease output&capacity by [redacted] annually.
- [redacted] will decrease output&capacity by [redacted] annually.
- [redacted] will decrease output&capacity by [redacted] annually.

High growth:

……..