

# C1 China Refining Industry 2009

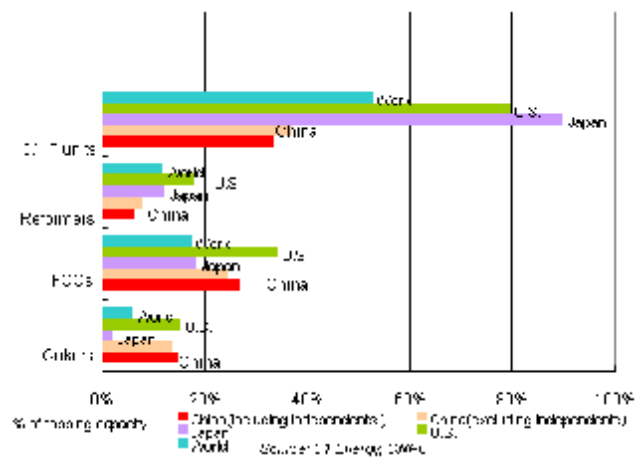
## Sample Pool

This report covers **177** refineries in China. Of the refineries, **78** are major refineries under the fold of Sinopec, CNPC, CNOOC and SYPG, including two sino-foreign joint venture refineries – Dalian Wepec and Fujian Refining & Chemical Co. The rest **99** are independent refineries.

## China's Refining Industry Layout & China's Role in the Global Map

- ◆ Overall refinery topping capacity, average refinery scale: China vs. World
- ◆ Complexity, configurations: China vs. World
- ◆ Refining Capacity Expansion in China (1997-2008)
- ◆ China's Refining Capacity – by Ownership & Region

**Chart: Refinery Configuration Comparison**



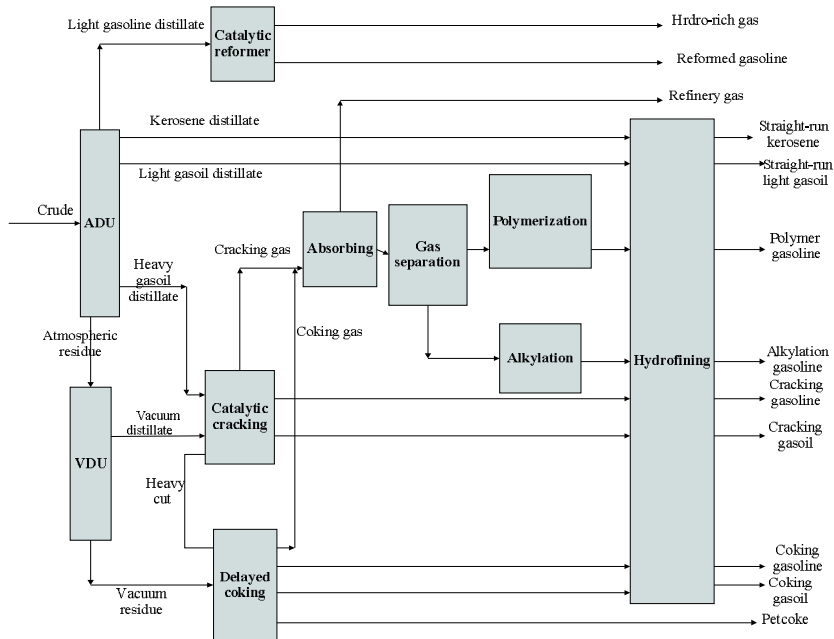
**Map: Distribution of China's Major Oilfields**



**Complexity & Configurations**

- ◆ Typical Processing Flow in Chinese Refineries
- ◆ Complexity and Configurations
- ◆ Database of Main Secondary Refining Units (Table below as reference)
- ◆ Aromatics Units, Bitumen Units, MTBE Units, Ethylene Units

**Chart: Processing Flow of Fuel Refineries**



	Refinery	Owner	CDU	Delayed Coker	FCC/RFCC	Hydrocracker	Catalytic Reformer	Hydrotreating
1	Zhenhai Refining & Chemical Co	Sinopec	460	70	96	50	44	136
.....								
.....								
.....	Shijiazhuang Refinery	Sinopec	100	16	34	0	12	0

## Refinery Expansion: Domestic-Oriented or Export-Oriented?

- ◆ Newly-Added or Planned Major Refineries
- ◆ Major Refinery Expansion Projects
- ◆ Newly-Added or Planned Capacity in Existing Refineries

*Map: Major Refinery Expansion Projects in China for 2010 and Beyond*



- ◆ Estimated Layout of China's Refining Industry by 2013
- ◆ Estimated Distribution of Refining Capacity in Chinese Major Refineries - by Region
- ◆ Secondary Refining Units to Be Added or Expanded in Major Refineries

Refinery	Secondary Refining Units	Capacity (kbid)	Operation Schedule	Location
PetroChina Qinzhou refinery	Reformer	.....	2013	Guangxi, S. China
	RFCC	.....		
	VGC hydrocracker	.....		
	Gasol. hydrotreating unit	.....		
PetroChina Ningxia refinery	Gasoline hydrotreating unit	.....	2013	Ningxia, NW China
	FCC	.....		
Sinopec Baishi refinery	FCC	.....	2013	Guangxi, S. China
	.....	.....		



