

China Steel Chemical Corp.



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The Brief Introduction to CSCC

Chronology of Major Events

- 1.CSCC established in February 1989.
- 2.Plants completed during 1991~1993.
- 3.CSCC IPO listed in Taiwan in November, 1998
- 4.CSCC was awarded “Industrial Excellence Award “ and “National Outstanding SMES Award” in 2000 and 2001.
- 5.CSCC achieved OHSAS 18001 certification during 2001~2008.
- 6.CSCC achieved CNLA in April, 2002. And granted authentication in April 2005 and November, 2008.
- 7.Refined Naphthalene Unit expansion completed in April 2009.
8. The capacity 1,400 MT/YR of Green Mesophase Powder Plant completed in January 2010.
- 9.The Light Oil Distillation plant phase 2 completed in April 2010.
- 10.The line G5/G6 of Green Mesophase Powder Plant reaching capacity to 2,600 MT/YR completed during the third quarter 2011.
- 11.The line G1N/G2N of Green Mesophase Powder Plant reaching capacity to 5,000 MT/YR completed by the end of 2012.



The Brief Introduction to CSCC

The structure of shareholder

unit : per thousand stocks

| Major shareholder | Shares | Percentage |
|---|---------------|---------------|
| China Steel Corporation | 68,787 | 29.04% |
| China Synthetic Rubber Corp | 11,759 | 4.96% |
| Fubon Life Insurance Co., Ltd. | 9,735 | 4.11% |
| Ever Wealthy International Corp. | 5,077 | 2.14% |



The Brief Introduction to CSCC

✚ Table of academic degree in CSCC's employees

| Academic Degree | Number | Percentage |
|---------------------------------------|--------|------------|
| Doctor Degree | 10 | 4% |
| Master Degree | 64 | 27% |
| Bachelor Degree | 99 | 42% |
| Junior college and Senior high school | 64 | 27% |
| Total | 236 | 100% |

As of : Jan, 2017



The Brief Introduction to CSCC

Unit: NT\$ thousands

| | Jan-15 | Feb-15 | Jul-15 | Aug-15 | Sep-15 | Oct-15 | Nov-15 | Dec-15 | Total |
|-----------------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|--------------|
| Revenue | 522,952 | 483,543 | 485,647 | 474,265 | 434,130 | 472,108 | 313,467 | 379,087 | 5,737,544 |
| Operating Income | 119,655 | 99,624 | 102,461 | 83,114 | 71,336 | 100,534 | 37,230 | 58,628 | 1,199,917 |
| Net income before tax | 122,152 | 170,883 | 126,091 | 94,037 | 129,546 | 100,394 | 50,927 | 79,659 | 1,441,863 |
| Oil Price | 48 | 55 | 55 | 46 | 47 | 47 | 44 | 37 | 51 |
| | Jan-16 | Feb-16 | Jul-16 | Aug-16 | Sep-16 | Oct-16 | Nov-16 | Dec-16 | Total |
| Revenue | 412,419 | 394,262 | 469,737 | 437,669 | 402,458 | 452,017 | 348,969 | 465,890 | 5,143,442 |
| Operating Income | 59,721 | 85,753 | 108,868 | 96,598 | 88,862 | 104,050 | 95,483 | 84,972 | 1,099,799 |
| Net income before tax | 78,000 | 87,832 | 109,380 | 94,359 | 92,749 | 114,900 | 106,995 | 113,442 | 1,201,339 |
| Oil Price | 30 | 31 | 44 | 45 | 45 | 49 | 45 | 53 | 43 |
| | Jan-17 | Feb-17 | Jul-17 | Aug-17 | Sep-17 | Oct-17 | Nov-17 | Dec-17 | Total |
| Revenue | 582,273 | | | | | | | | 582,273 |
| Operating Income | 129,849 | | | | | | | | 129,849 |
| Net income before tax | 109,023 | | | | | | | | 109,023 |
| Oil Price | 54 | | | | | | | | 54 |



The Brief Introduction to CSCC

Unit: NT\$ millions

| | 2012 | 2013 | 2014 | 2015 | 2016 | 2017/1 |
|----------------------|-------|-------|-------|-------|--------|--------|
| Revenue | 8,257 | 8,820 | 8,904 | 5,737 | 5,143 | 582 |
| Net income after tax | 1,974 | 2,221 | 2,189 | 1,239 | *1,201 | 109 |
| EPS(NT\$) | 8.58 | 9.60 | 9.50 | 5.37 | - | - |

* The announcement is based on self-reported consolidated net income before tax.

| | 20151Q | 20152Q | 20153Q | 20154Q | 20161Q | 20162Q | 20163Q |
|-----|--------|--------|--------|--------|--------|--------|--------|
| EPS | 1.70 | 1.53 | 1.30 | 0.84 | 1.02 | 1.04 | 1.10 |



Dividend Payout

| | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 |
|-----------|------|------|------|------|------|------|
| EPS | 8.3 | 9.7 | 8.5 | 9.6 | 9.5 | 5.37 |
| Cash Div. | 7.2 | 8.0 | 7.4 | 8.3 | 8.3 | 4.5 |
| Stock Div | 0 | 0 | 0 | 0 | 0 | 0 |



The Brief Introduction to CSCC

unit : metric tons

| Period Input | 2012 | 2013 | 2014 | 2015 | 2016 | 2017/1 |
|------------------|---------|---------|---------|---------|---------|--------|
| Coal Tar | 203,920 | 264,578 | 266,814 | 257,506 | 258,214 | 25,877 |
| Light Oil | 77,971 | 93,609 | 100,930 | 100,220 | 94,834 | 9,086 |

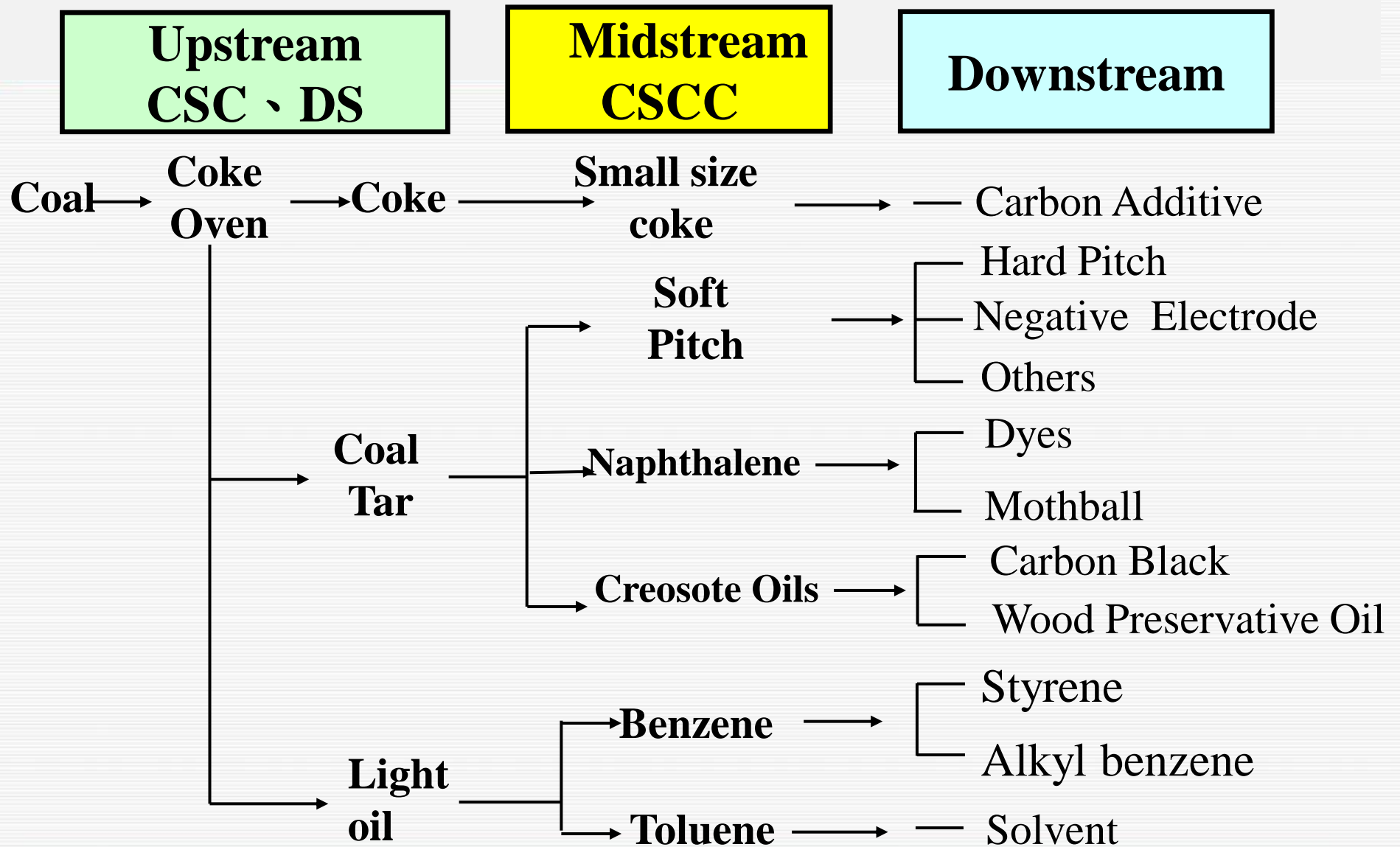


Sales Revenue breakdown by products

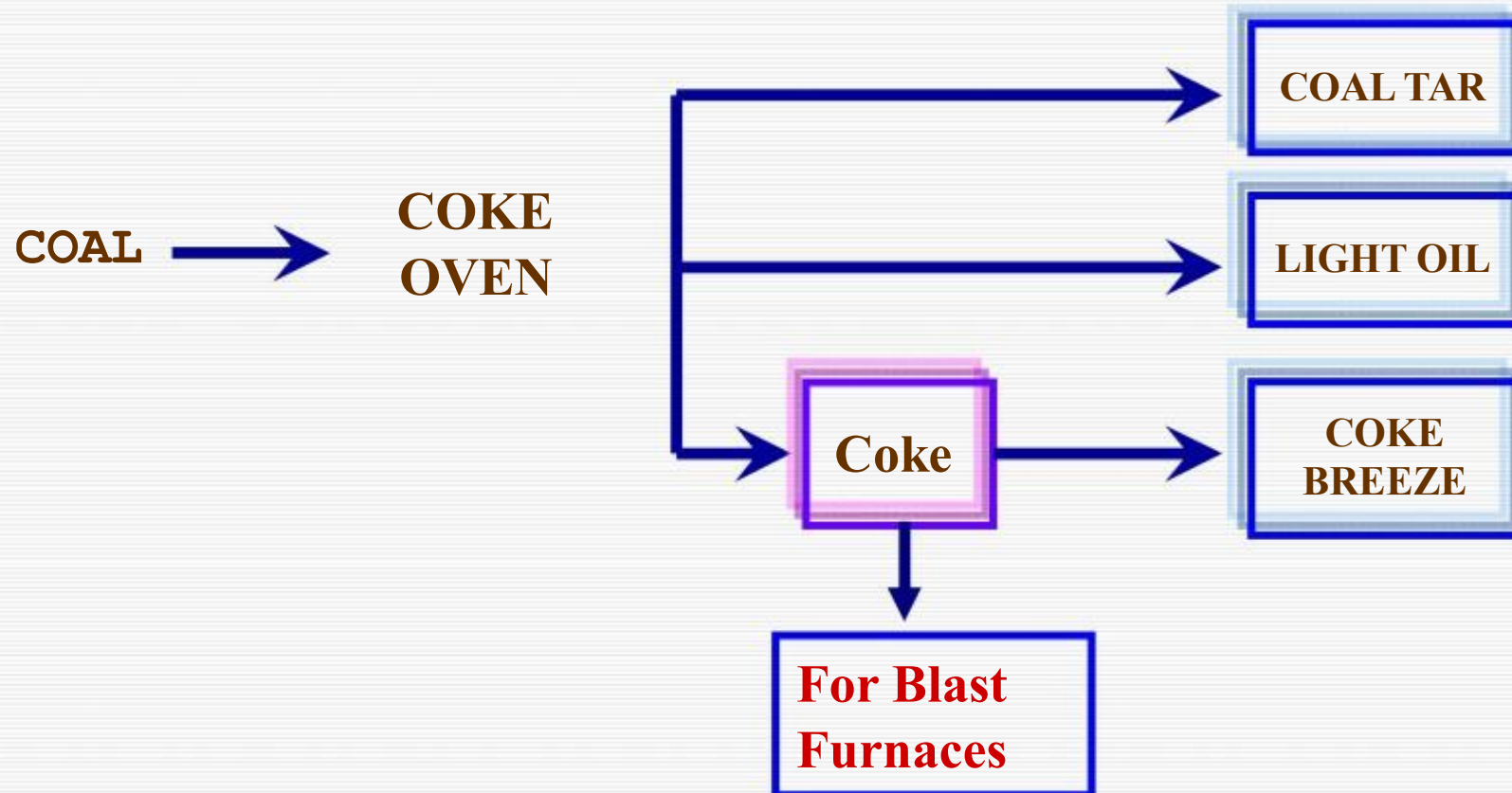
| | 2014 | 2015 | 2016 | 2017/1 |
|----------------------|-------------|-------------|-------------|---------------|
| Light Oil | 35% | 33% | 33% | 37% |
| Benzene | 29% | 27% | 28% | 32% |
| Coal Tar | 47% | 44% | 44% | 50% |
| Creosote Oils | 30% | 23% | 24% | 27% |
| Soft Pitch | 7% | 10% | 9% | 14% |
| Naphthalene | 8% | 9% | 9% | 8% |
| Mesophase | 5% | 9% | 9% | 2% |
| Coke Breeze | 9% | 10% | 11% | 8% |



The Relating Product Map of Coal Chemical Industries

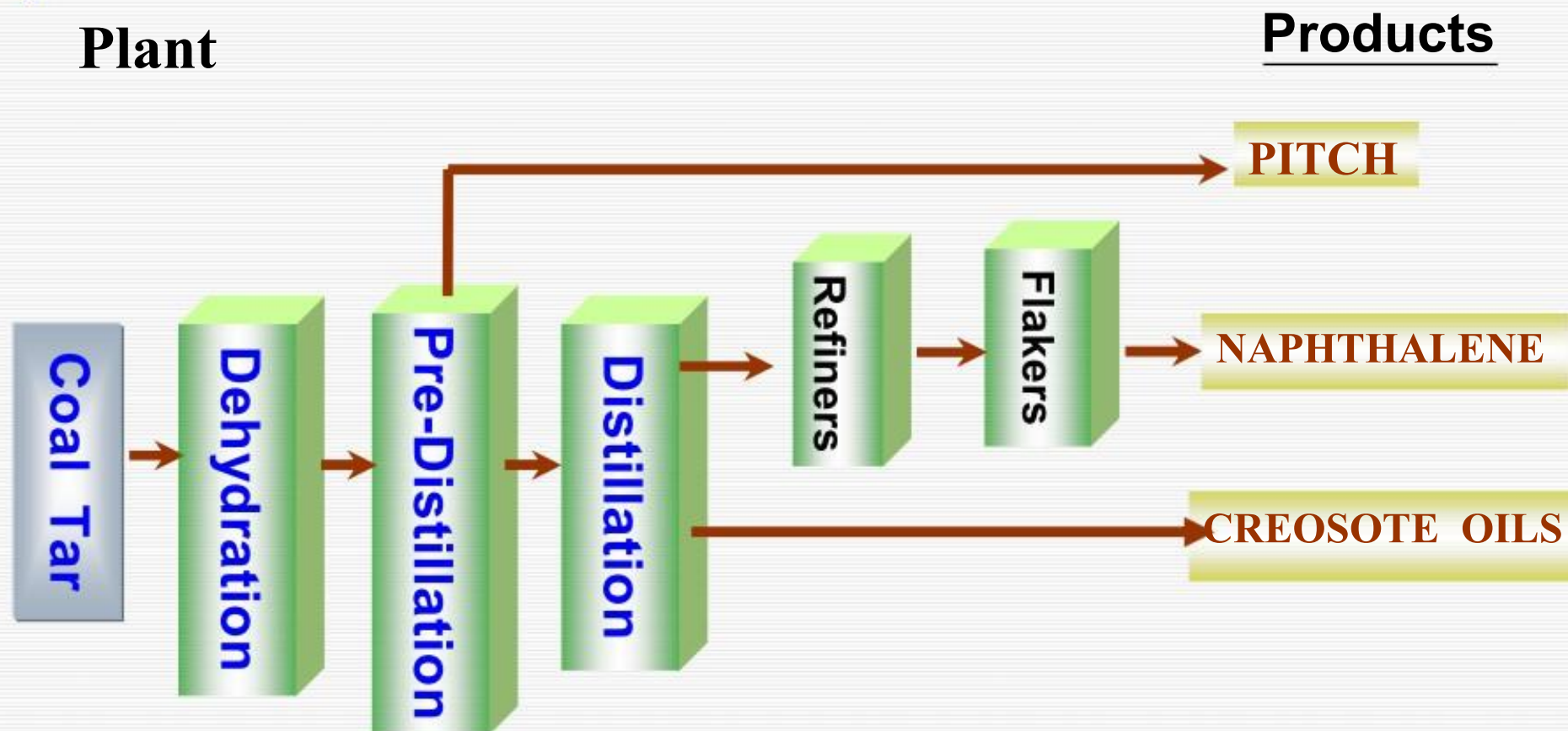


The Relating Product Map of Coal Chemical Industries



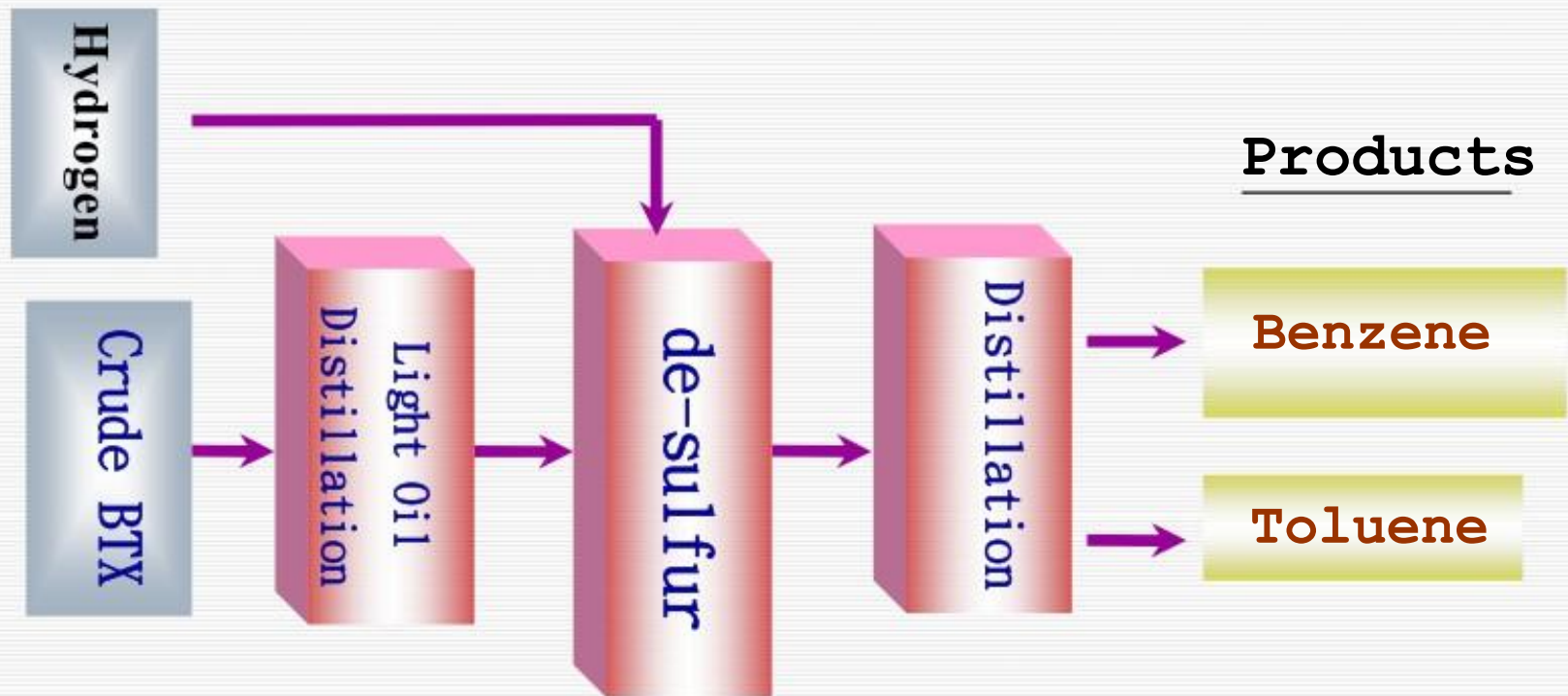
The Relating Product Map of Coal Chemical Industries

The Process of the Coal Tar Distillation Plant



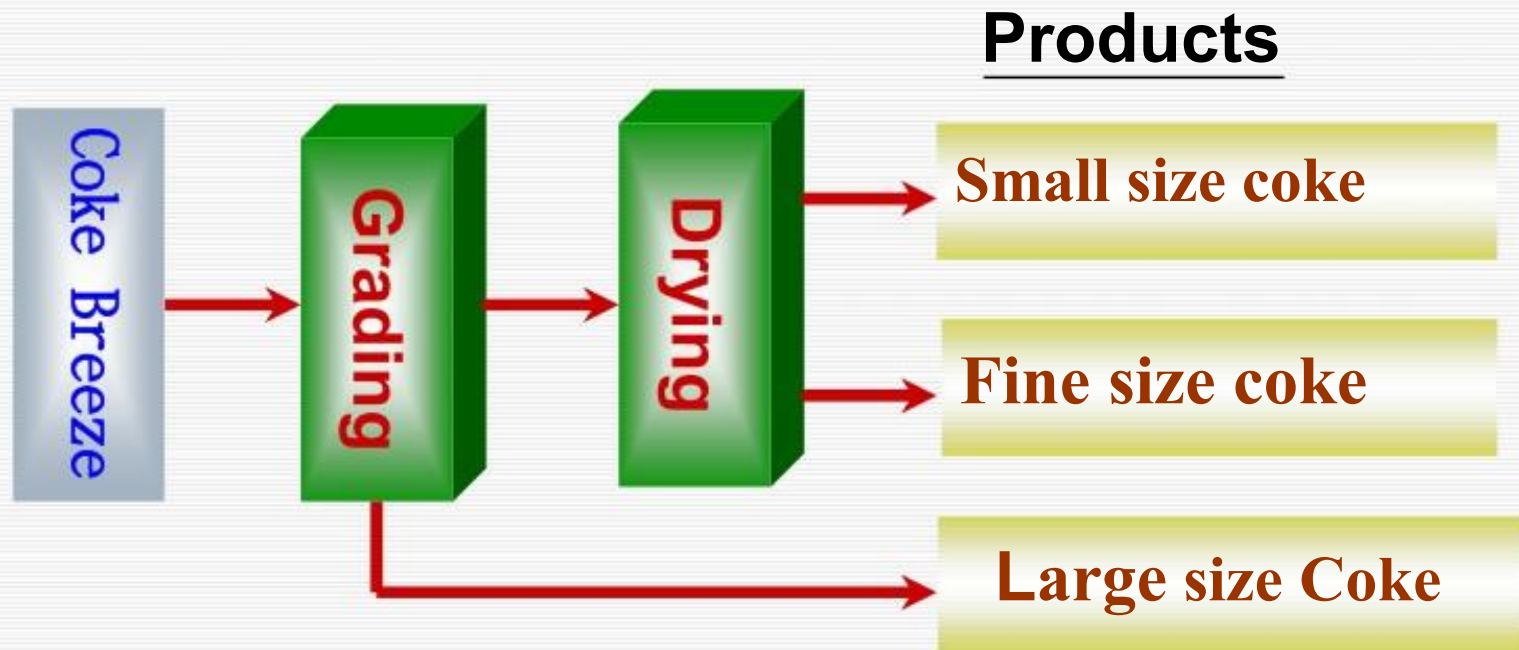
The Relating Product Map of Coal Chemical Industries

The Process of the Light Oil Distillation Plant



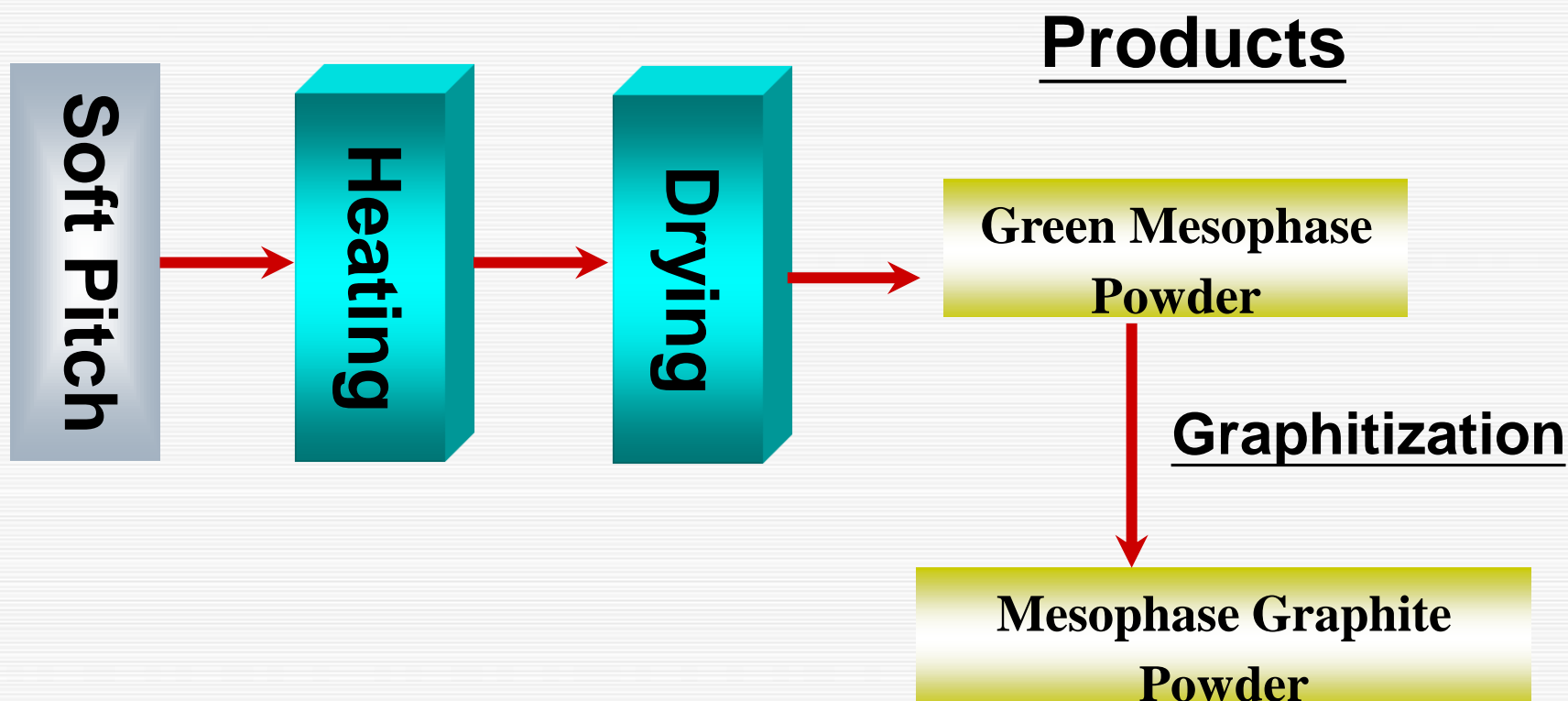
The Relating Product Map of Coal Chemical Industries

The Process of the Coke Breeze Plant



The Relating Product Map of Coal Chemical Industries

✚ The Process of the Green Mesophase Powder plant



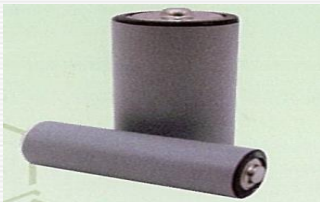
The Industrial Use for CSCC



The Appliance of Soft Pitch

Soft Pitch

Primary
electrode rod



Water and rust
proofing materials



Green Mesophase
Powder

Mesophase
Graphite Powder

Active Carbon for
Supercapacitor



Lithium Ion
Battery



Hard Pitch

Electrode binder



Roofing Pitch



The Appliance of Naphthalene

Naphthalene

Sulfonated naphthalene formaldehyde condensates

B-naphthol, Tobias acid, J-acid

Mothballs

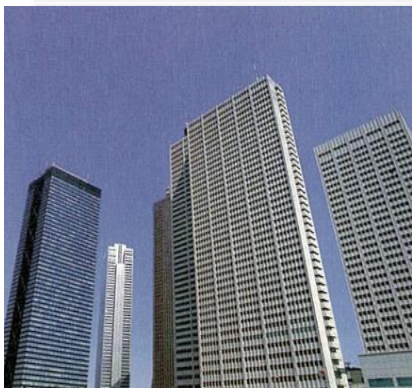
Phthalic anhydride (PA)

PEN resin BON-6

Water-reducing admixture

Dyestuffs pigment

Plasticizer



The Appliance of Creosote oils

Creosote oils

**Carbon
black**



Wood preservative oil



Wash oil



The Appliance of Benzene

Benzene

Styrene

External shell for 3C's product and sport materials



Phenol

Epoxy resin paint



Caprolactam

Nylon 6



Alkyl-benzene

detergents



New Products Development

- ✦ High Soft Point Pitch (HSP):utilized as wrapping materials to cover carbon for Li-ion Batteries anode or as binder material for fireproofing material.
- ✦ High Soft Point Pitch is a special pitch which possesses a soft point higher than 260°C and have high fixed carbon ratio (ca. 80-85%). It is also utilized as carbon fiber precursor, because the production procedure of HSP is similar to the one of carbon fiber procedure.
- ✦ Nowadays, the pre-launch sample is provided to customers for testing as wrapping material for Li-ion batteries anode and fireproofing material. Mass production process design had been completed and evaluation of mass product line will be made after market expands.



New Products Development

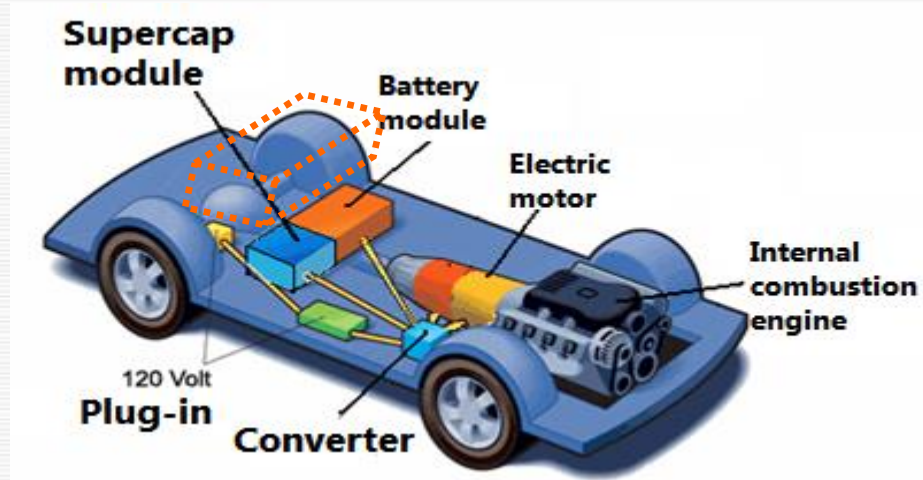
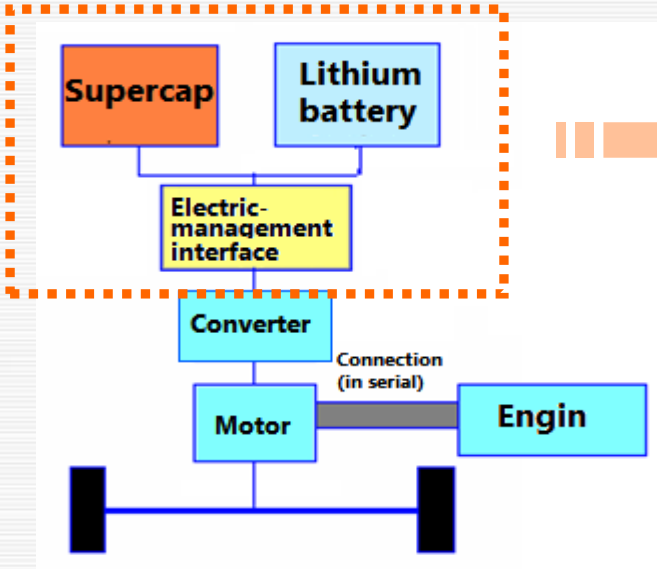
- ✦ The quality of AC is great as Japan leading brand. The AC has already been sold worldwide.
- ✦ Due to the expansion of Li-ion batteries anode material, establishing graphitizing factory is planning. Studying abroad techniques of graphitization, evaluation of inductive graphitizing furnace and mass production plan are progressing.



Applications of Supercapacitors

PHEV

(Plug in hybrid electric vehicles)



Also in..



E-Bus



Light Rail Transit



Wind turbine





Thank You

