

China Steel Chemical Corp.



Table of Content

- 1.The Brief Introduction to CSCC
- 2.The Introduction of Coal Chemical Industries
- 3.The Industrial Use for CSCC
- 4.The New Products Development



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	9	4%
Master Degree	64	27%
Bachelor Degree	99	42%
Junior college and Senior high school	64	27%
Total	236	100%

As of : Oct, 2016



The Brief Introduction to CSCC

Unit: NT\$ thousands

	Mar-14	Apr-14	May-14	Jun-14	Jul-14	Aug-14	Sep-14	Oct-14	Total
Revenue	786,704	884,649	792,968	723,749	853,224	741,670	706,794	717,381	8,904,302
Operating Income	227,866	218,459	220,548	211,391	258,691	209,206	191,766	187,511	2,380,809
Net income before tax	251,402	224,116	230,627	241,950	264,809	223,360	221,772	193,038	2,567,737
Oil Price	104	104	106	108	105	100	96	86	96
	Mar-15	Apr-15	May-15	Jun-15	Jul-15	Aug-15	Sep-15	Oct-15	Total
Revenue	580,212	561,067	489,683	541,038	485,647	474,265	434,130	472,108	5,737,544
Operating Income	136,281	147,802	120,937	122,316	102,461	83,114	71,336	100,534	1,199,917
Net income before tax	156,163	140,757	126,744	144,510	126,091	94,037	129,546	100,394	1,441,863
Oil Price	53	58	63	62	55	46	47	47	51
	Mar-16	Apr-16	May-16	Jun-16	Jul-16	Aug-16	Sep-16	Oct-16	Total
Revenue	419,290	404,258	426,617	509,856	469,737	437,669	402,458	452,017	4,328,583
Operating Income	113,773	85,628	78,476	97,615	108,868	96,598	88,862	104,050	919,344
Net income before tax	112,981	92,279	95,094	103,328	109,380	94,359	92,749	114,900	980,902
Oil Price	37	41	46	48	44	45	45	49	42



The Brief Introduction to CSCC

Unit: NT\$ millions

	2011	2012	2013	2014	2015	2016/ 1~10
Revenue	8,915	8,257	8,820	8,904	5,737	*4,328
Net income after tax	2,247	1,974	2,221	2,189	1,239	*980
EPS(NT\$)	9.76	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

<div>Period Input</div>	2011	2012	2013	2014	2015	2016/1~10
Coal Tar	213,284	203,920	264,578	266,814	257,506	226,853
Light Oil	80,921	77,971	93,609	100,930	100,220	81,133

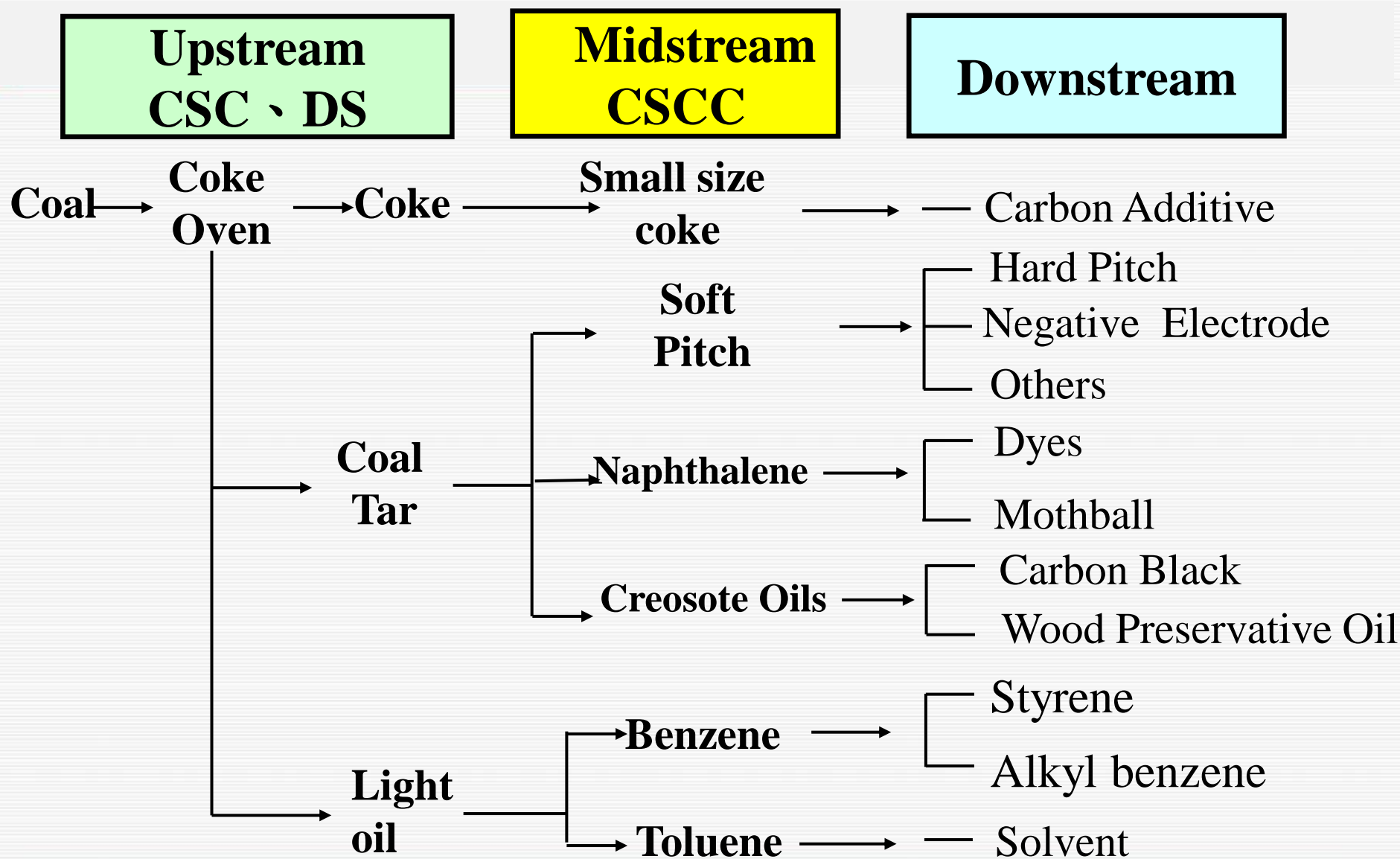


Sales Revenue breakdown by products

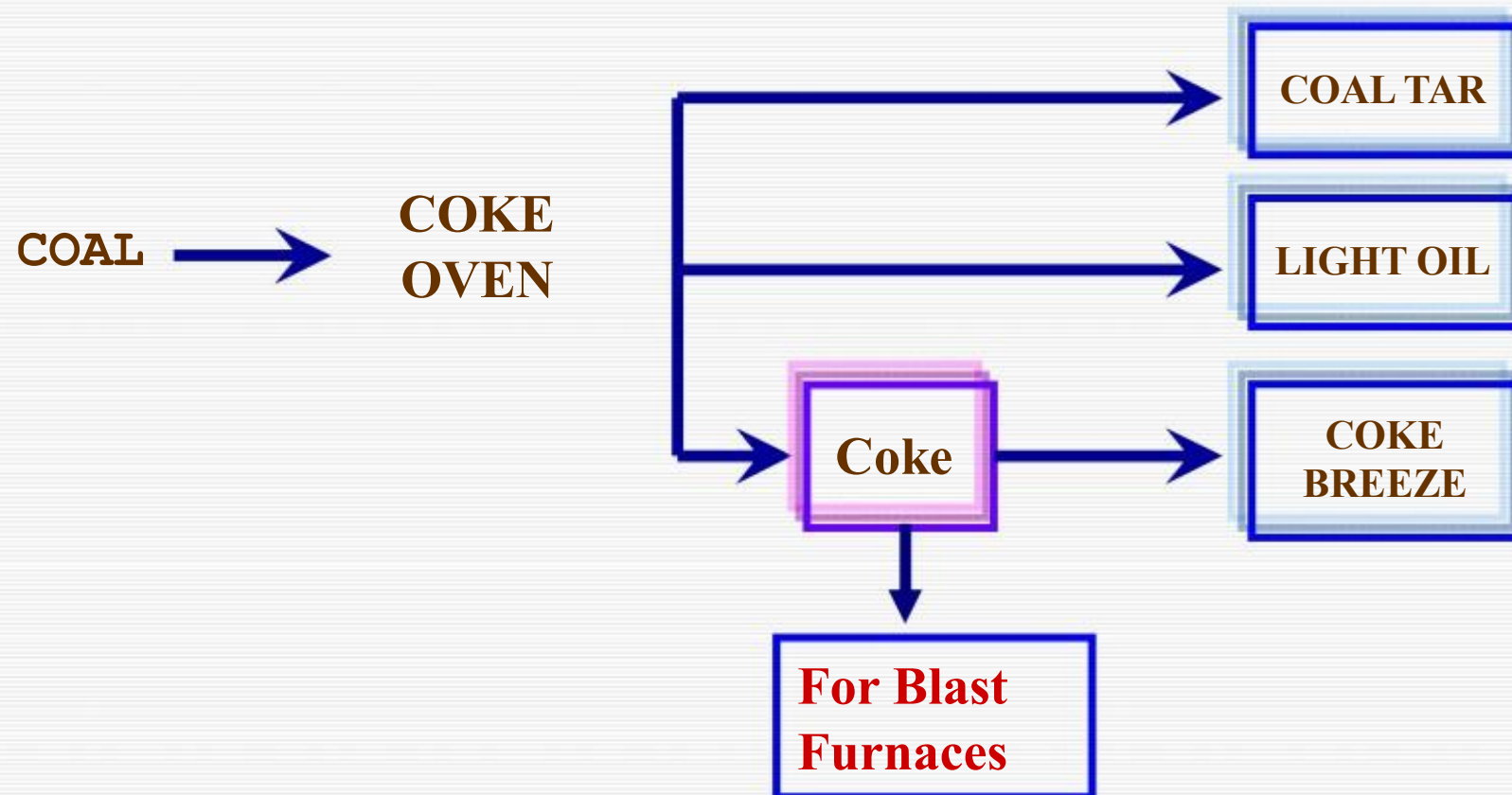
	2014	2015	2016/1Q	2016/2Q	2016/3Q	2016/10
Light Oil	35%	33%	35%	31%	31%	28%
Benzene	29%	27%	29%	27%	26%	21%
Coal Tar	47%	44%	41%	44%	50%	54%
Creosote Oils	30%	23%	21%	23%	30%	22%
Soft Pitch	7%	10%	9%	11%	8%	20%
Naphthalene	8%	9%	9%	8%	10%	10%
Mesophase	5%	9%	10%	11%	7%	6%
Coke Breeze	9%	10%	10%	10%	10%	10%



The Relating Product Map of Coal Chemical Industries

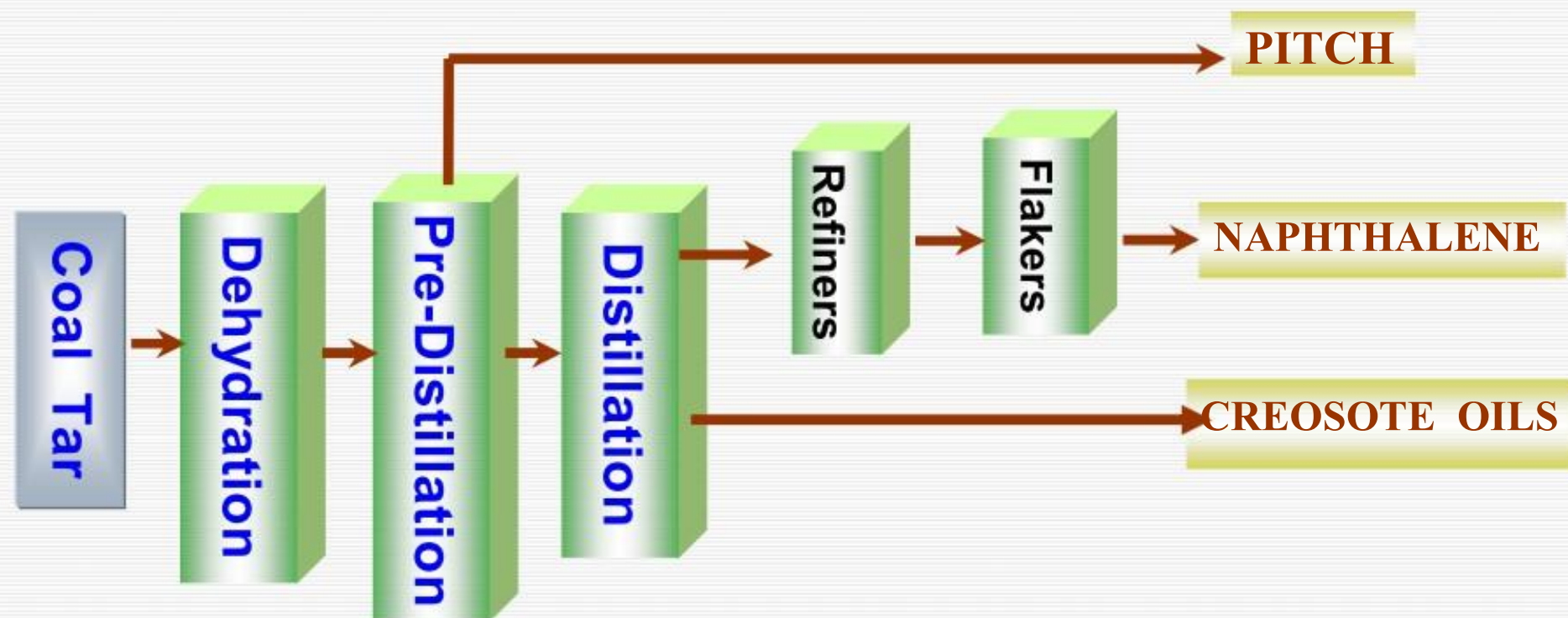


The Relating Product Map of Coal Chemical Industries



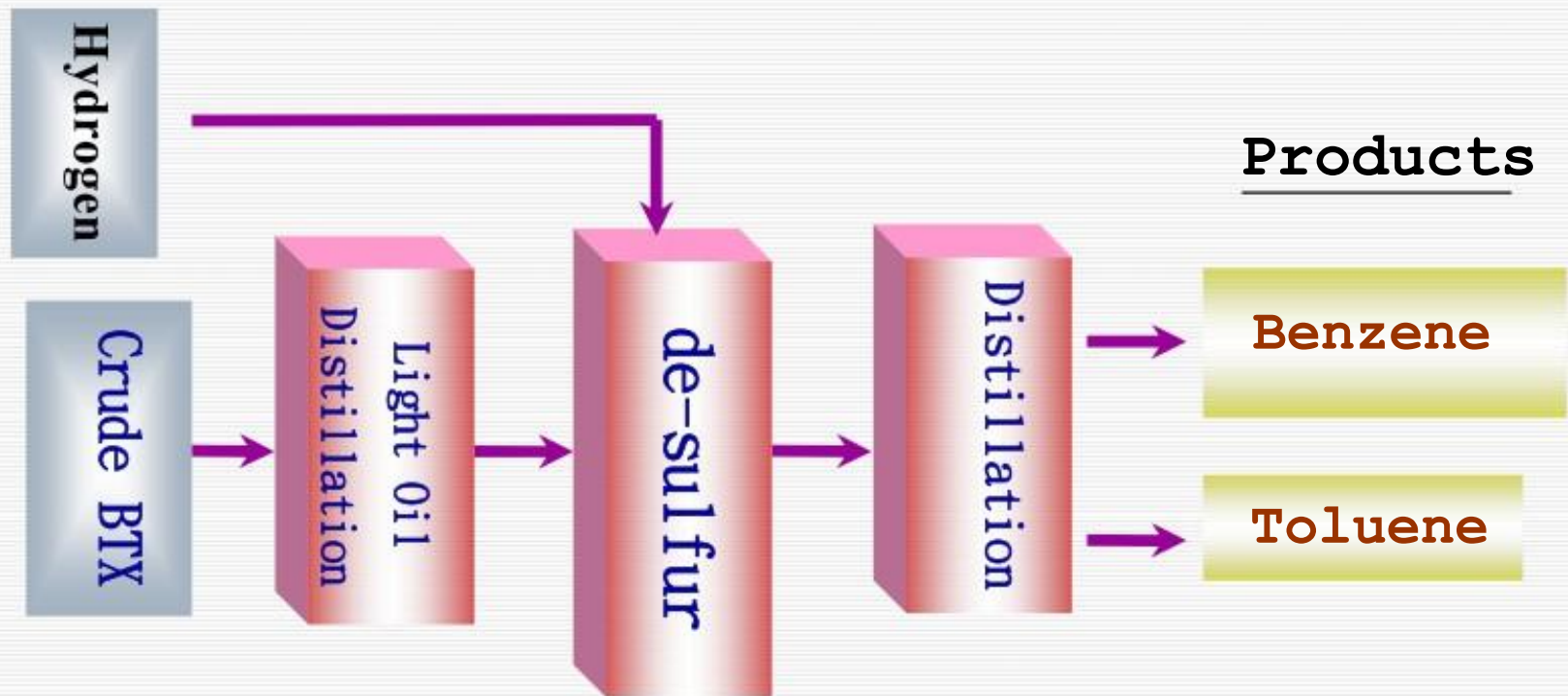
The Relating Product Map of Coal Chemical Industries

The Process of the Coal Tar Distillation Plant



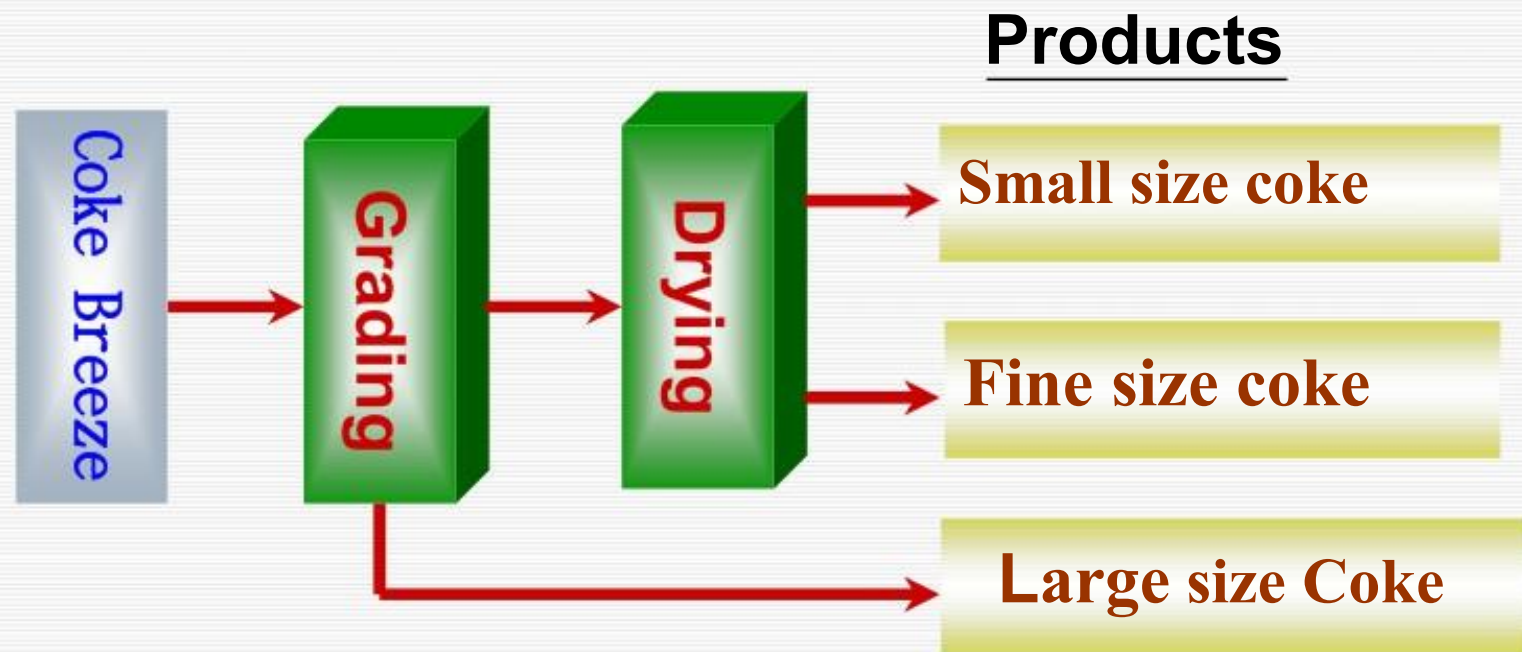
The Relating Product Map of Coal Chemical Industries

The Process of the Light Oil Distillation Plant



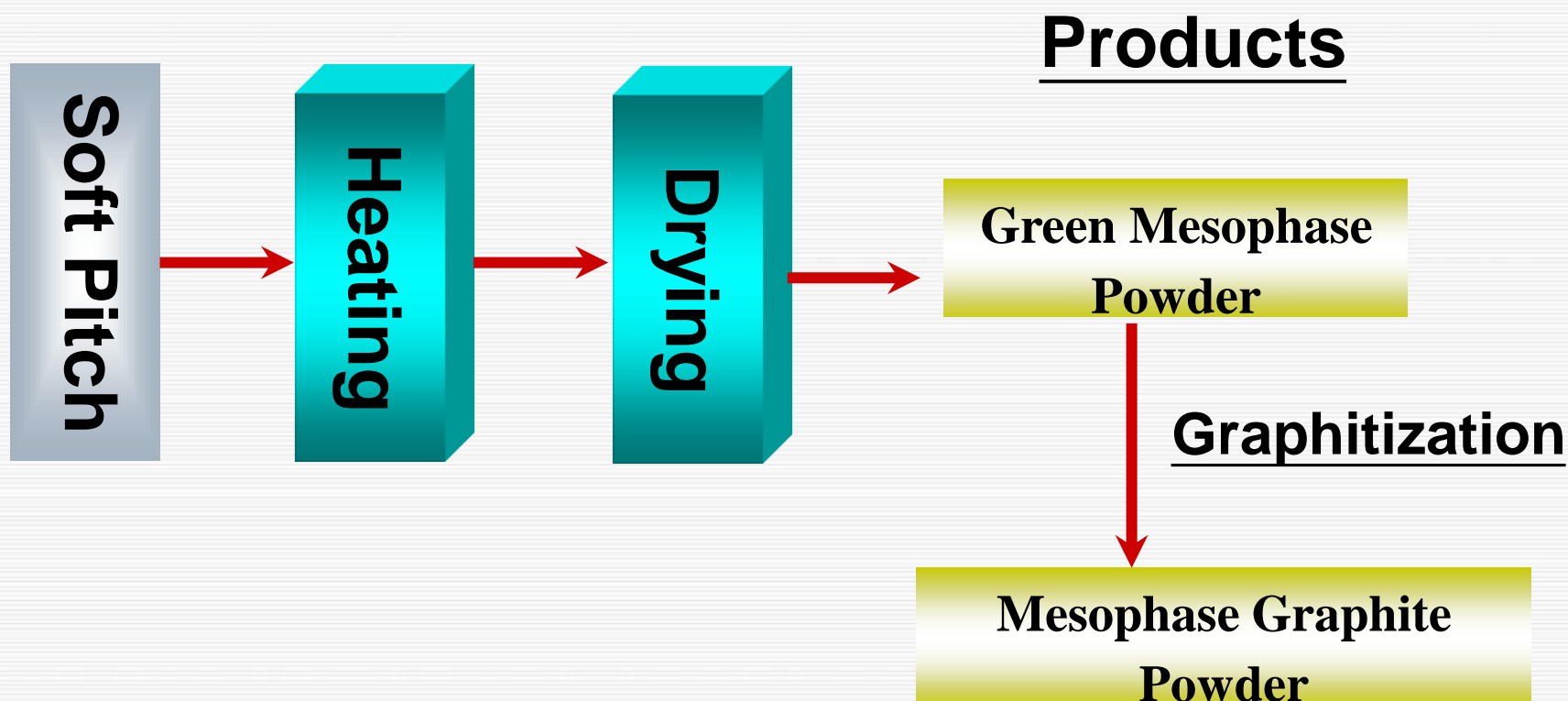
The Relating Product Map of Coal Chemical Industries

The Process of the Coke Breeze Plant



The Relating Product Map of Coal Chemical Industries

✚ The Process of the Green Mesophase Powder plant



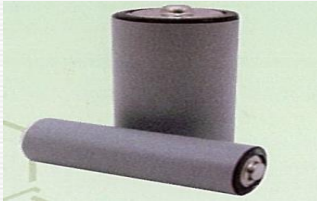
The Industrial Use for CSCC



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

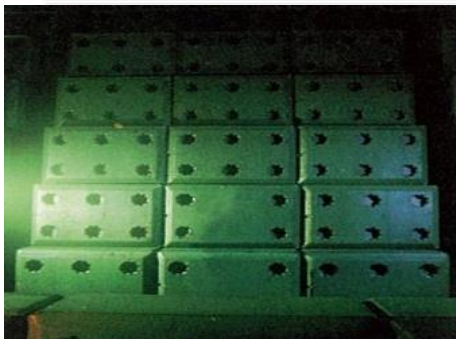


Lithium Ion
Battery



Hard Pitch

Electrode binder



Roofing Pitch



The Appliance of Naphthalene

Naphthalene

Sulfonated
naphthalene
formaldehyde
condensates

B-naphthol,
Tobias acid, J-
acid

Mothballs

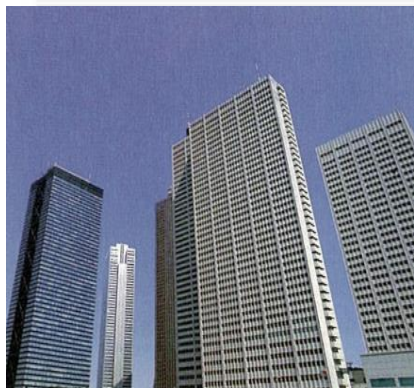
Phthalic
anhydride (PA)

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

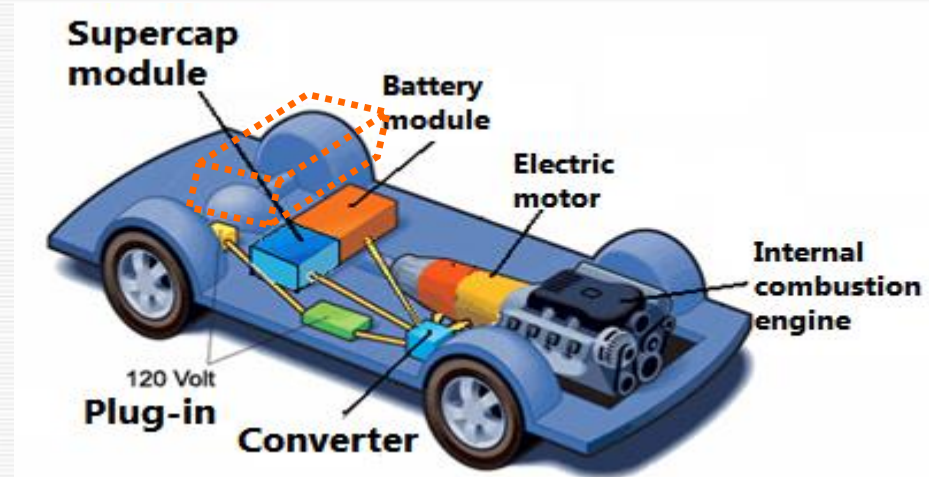
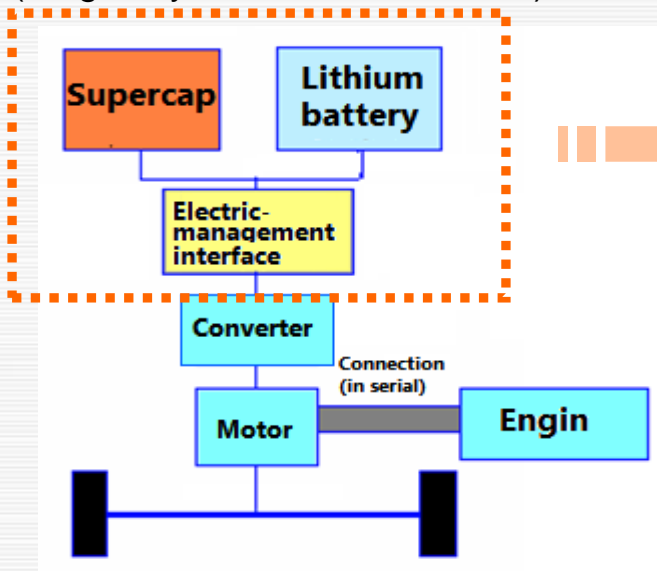
- ✦ The quality of AC is great as Japan leading brand. The AC has already been sold worldwide.
- ✦ Due to the expansion of Li-ion batteries anode material, establishing graphitizing factory is planning. Studying abroad techniques of graphitization, evaluation of inductive graphitizing furnace and mass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



Applications of Supercapacitors

PHEV

(Plug in hybrid electric vehicles)



Also in..



E-Bus



Light Rail Transit



Wind turbine





Thank You

