

**China Carbon Graphite Group, Inc.**  
**Specialty Materials**  
**CHGI: OTC/BB**

**May 7, 2009**

**PROFILE**

As the name suggests, China Carbon Graphite Group, Inc. is a producer of synthetic carbon graphite material for a variety of industrial applications. Converted to a private enterprise in 2001, the Company is one of the largest synthetic graphite manufacturers in China. In 2003, the Company was awarded a Chinese patent for advanced graphite material and production process. In our view, this experience along with strong relationships with engineering and technology universities in China, put the Company in a position to remain at the forefront of graphite development.

Both domestic and world graphite demand trends bode well for the Company's long-term sales and earnings growth. China Carbon reported \$27.3 million in sales in 2008, compared to \$24.4 million in the previous year. Production in the second half 2008 was impacted by the cessation of commercial activity during the Summer Olympics in Beijing. More normal order flow has resumed and we expect the pace of sales to pick up in the current year even against continued constraints in the global economic environment that has reduced demand for industrial materials.

Historically profitable, the Company reported \$3.1 million in net income or \$0.21 per share in 2008. Operations generated \$5.4 million in cash during the year, making it possible for the Company to finance capital expenditures and pay down debt. The cash conversion rate reached 19.8%.

The Company's operations are located in Xinghe County in Inner Mongolia of the People's Republic of China. The corporate website address is [www.chinacarboninc.com](http://www.chinacarboninc.com), where the Company provides illustrations of its production process and finished goods.



**MARKET DATA**

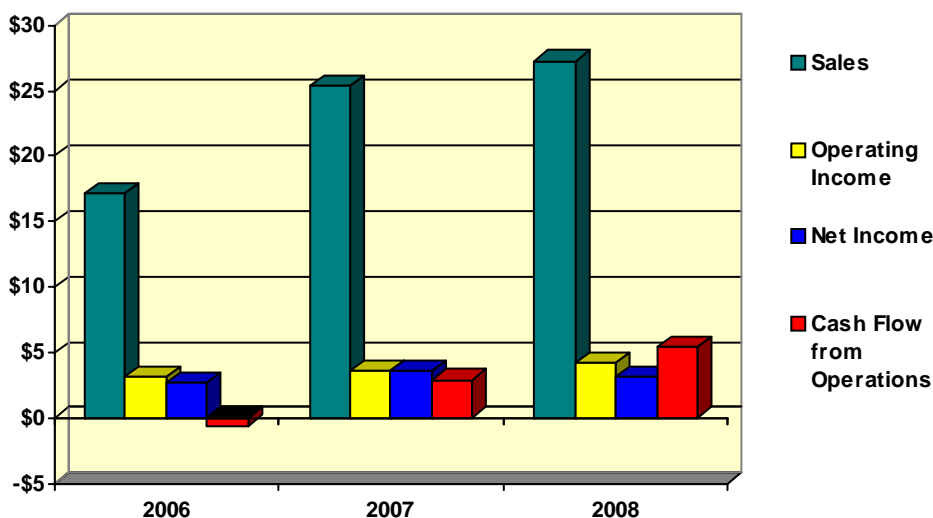
Price: \$0.40 (5/6/09)  
 52 Wk Hi-Lo: \$2.22 - \$0.11  
 Ave. Volume: 12 K  
 Short Interest: <1%  
 Beta: NA

**VALUATION**

Price/Sales: 0.2 X  
 Price/CFO: 1.0 X  
 Price/EPS: 1.9 X  
 Price/Book Value: 0.2 X

*Based on TTM ending 12/31/08*

**FINANCIAL PERFORMANCE**



*Dollars in millions; fiscal year ends December*

*Source: Company Reports*

**EQUITY SECURITIES**

Common Shares Out: 14.0 M  
 Insiders: 67%  
 Float: 4.7 M  
 Institutional: <5%  
 5% Holders: -0-  
 Common Dividend: Nil  
 Options Out: -0-  
 Warrants Out: 6.0 M  
 Preferred Shares Out: 1.2 M  
 Preferred Stock: \$1.2 M  
 Preferred Dividend: 3%

*As of 12/31/08 except shares outstanding are as of 3/21/09*

## INVESTMENT HIGHLIGHTS

### Positives

- ♦ Multiple, large addressable markets for the Company's carbon graphite products both domestic and export
- ♦ Positive demand trends and increasing number of applications for graphite use through technology innovation such as battery and nuclear power applications
- ♦ Potential to capture market share and expand profit margins through plans to double production capacity to 30,000 metric tons per year
- ♦ Continued strong cash flow generation in the most recent fiscal year despite a drop in profit margins
- ♦ Improved balance sheet metrics after debt restructure and reduction
- ♦ A realignment of responsibilities among top management may create greater efficiency in leadership as founder assumes operational role
- ♦ Recent additions to management team have expanded available expertise in U.S. GAAP accounting and capital markets
- ♦ Developing partnership with leading Chinese engineering university helps ensure availability of qualified personnel as well as access to leading edge technology in materials science

### Negatives

- ♦ Limited cash resources reported in the most recent quarter results
- ♦ Company is closely held by a single insider whose ownership totals 67% of the outstanding shares
- ♦ Board of directors is composed of three individuals only one of whom qualifies as an independent director; the board has no audit or compensation committees; there are outstanding internal control issues
- ♦ The Company's operations are located outside the U.S. and business is conducted primarily in the Chinese language, adding additional complexity to due diligence requirements for U.S. investors
- ♦ Changes in exchange rates between China's renminbi (functional currency) and the U.S. dollar (reporting currency) may negatively impact reported earnings and balance sheet values
- ♦ CHGI shares have a limited trading history, are subject to price volatility, and have traded at wide spreads between bid and ask prices
- ♦ Potential dilution from the exercise of 7.2 million in outstanding convertible preferred stock and warrants.

## STOCK CHART



## OUTLOOK

China Carbon Graphite completed a reverse merger into U.S. public shell corporation in December 2007. Accordingly, the stock has a limited trading history as a public company. In our view, the Company remains relatively unknown in the U.S. equity markets.

Like many Chinese companies, recent results were impacted by the cessation of production during the 2008 Summer Olympics held in Beijing. However, year-over-year comparisons in 2009, should be more interesting as the Company returns to normal production cycles. We believe successful completion of a planned capacity expansion is a "game changer" for the Company and could lead to a significant increase in revenue and earnings in the next year. We also expect progress on product development for nuclear power applications to spark interest and drive valuation.

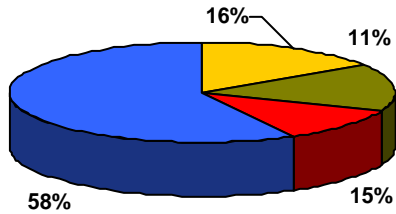
In our view, investors should consider CHGI a speculative position and most appropriate for those with long-term horizons and tolerance for above average price volatility.

## INDUSTRY CALENDAR

- ♦ May 6-9, 2009 - **5th Beijing International Semiconductor Industry Expo**
- ♦ June 29, 2009 - **China Sustainable Building Summit**, Beijing
- ♦ Sept. 2-4, 2009 - **China Composites Expo 2009**, Shanghai
- ♦ Oct. 14-16, 2009 - **6th China Internat'l Industrial Minerals Expo**, Shanghai

**CUSTOMER MIX**

- Datong Energy Development
- He Ming Advanced Materials
- Jiangsu Carbon Products
- All Others



Source: Company Reports

**RELATIONSHIPS**

- ◆ **AGCA, Inc.** - auditor
- ◆ **Hunan University** - technology cooperation agreement
- ◆ **Qinghua University** - informal research arrangement
- ◆ **XingGuang Investment Corp.** - significant investor

**BUSINESS STRATEGY**

China Carbon Graphite Group operates in the highly fragmented graphite industry in China. It claims the number one position among as many as four hundred producers. Location near abundant raw materials supplies and low-cost energy sources give the Company competitive advantage.

The Company has developed a two-part plan for organic growth. First, it plans to double production capacity from the current 15,000 metric tons per year to 30,000. The expansion is partially completed and requires the additional investment of an estimated \$8.0 million for new raw material processing and molding equipment and \$2.0 million for incremental working capital. Depending upon financing, we expect the Company to complete the capacity expansion by the second half of 2009.

The Company is also targeting the large, high-margin opportunity presented by the nuclear power industry in China. China's 11th and 12th Economic Plans call for a six-fold increase in nuclear power production by 2020, including as many as nineteen graphite-moderated-type reactors. Early research suggests a single 250 MW reactor of this type could require as many as 10,000 metric tons of nuclear quality graphite for initial construction and another 1,000 metric tons each year in operation. At this time most nuclear-grade graphite must be imported to China from foreign producers and sells at approximately US\$17,500 per metric ton.

We expect the Company to move forward in the next two to three years with the installation of required molding, baking and graphitization equipment for production of high-purity isotropic, nuclear-grade graphite. We believe China Carbon could be viewed favorably in future competition, since it is the only private graphite producer to be designated as a National Hi-Tech Enterprise by China's Ministry of Science & Technology.

**PRODUCTS**

The Company's product line may initially appear to be an unvaried series of dark gray forms. However, key characteristics divide the products into three main groups.



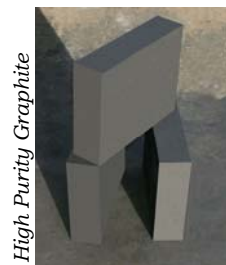
Graphite Electrodes

Graphite Electrodes are an excellent conducting material and are used widely in China in electric arc furnaces for the manufacture of steel.

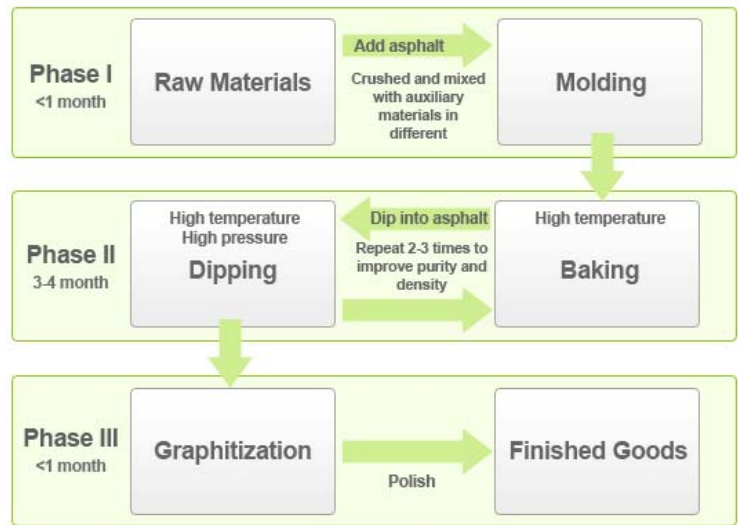
Fine Grain Graphite products are used in components in the automotive (piston rings, sealing rings) and aerospace industries (rocket nozzles).



Fine Grain Graphite



High Purity Graphite is used in the semiconductor, chemical and nuclear industries. A ten-person sales team markets the Company's products through distributors and wholesalers, some of which export to customers outside China.



**PRODUCTION PROCESS**

China Carbon uses carbon-rich coal asphalt and various types of coke to manufacture high strength and fine purity graphite. The Company sources raw materials from a variety of suppliers near its Inner Mongolia operations. Coke supplies are plentiful in China and the Company does not rely on long-term supply arrangements. Margins have been aided by access to low-cost electricity for the energy-hungry baking step of the process.

## GRAPHITE USES

- ♦ **Flake Graphite**  
Refractories, steel-making
- ♦ **Amorphous Graphite**  
Metallurgy  
Pencil production  
Refractory applications  
Coatings, paints & lubricants
- ♦ **Crystalline Graphite**  
Batteries  
Lubricants  
Powder metallurgy
- ♦ **Synthetic Graphite**  
Aerospace applications  
Batteries  
Electric arc furnace electrodes

## GROWTH DRIVERS

- ♦ Expansion of lithium ion battery used for mobile devices
- ♦ Expansion of nuclear power production, especially in China
- ♦ Expansion of aerospace and wind-energy applications
- ♦ Development of new industrial applications for graphite materials
- ♦ New purification technologies that improve performance
- ♦ More effective processing and production techniques

## PEERS

- ♦ Fangda Carbon - China
- ♦ Jilin Carbon - China
- ♦ Toyo Tanso - Japan
- ♦ Showa Denko K.K. - Japan
- ♦ SGL Group - Germany
- ♦ Entegris (Poco Graphite) - USA
- ♦ Superior Graphite - USA
- ♦ GrafTech International - USA
- ♦ Carbon Lorraine - France
- ♦ Timcal Group - Switzerland

## MARKET OPPORTUNITY

Graphite, like the diamond, is a form of carbon. It may be considered the highest grade of coal. There are three principal types of naturally occurring graphite: 1) flake graphite, 2) amorphous or fine-particle graphite, and 3) high crystalline graphite. World's reserve base exceeds 800 million tons.



Synthetic graphite can be produced from coal asphalt, petroleum coke and pitch. It tends to be of higher purity though not as crystalline as natural graphite. Synthetic graphite can be obtained through a process called graphitization, heat treatment of non-graphitic carbon or by chemical vapor deposition from hydrocarbons at high temperatures.

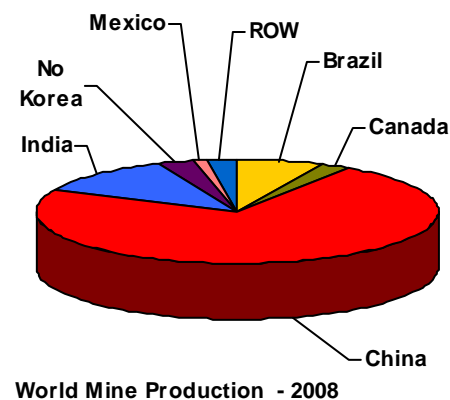
Before the current economic downturn, market research had estimated that the global demand for graphite was expected to increase by as much as 50% in the last half of the current decade. Industry experts had estimated the market for industrial uses could reach \$900 million by 2010. While near-term growth rates may have slowed, we expect the pace of growth to resume along with an economic recovery.

Long-term demand trends appear positive. For example, large-scale fuel-cell applications are under development that could consume as much graphite as all other uses combined. Likewise a surge in new nuclear power plant construction, many of which are located in China, is expected to dramatically increase demand for graphite-moderated nuclear reactors. Such reactors require new graphite supplies each year in operation.

Technology advances in the production of higher purity graphite powders are likely to lead to development of new applications for graphite. Such innovations may make it possible to use improved graphite in carbon-graphite composites, electronics, foils, friction materials and special lubricant applications. A new grade of shape-controlled micro graphite has been developed that could be used as anode material in large lithium-ion batteries for electric vehicles. Such advances also bode well for pricing.

China produces the majority of the world's natural graphite from deposits clustered in the Shandong and Heilongjiang producing regions. The country is also a leader in graphite manufacturing. Accordingly, China is a critical source of graphite supply for developed industrial economies. For example, China provides approximately 45% of U.S. graphite supplies mostly in the form of flake graphite. The most recent world prices for flake graphite range from US\$650 to US\$750 per metric ton.

## WORLD NATURAL GRAPHITE PRODUCTION



Source: U.S. Geological Survey, Jan. 2009

Graphite is a soft, steel-gray to black, hexagonally crystallized allotrope of carbon with a metallic luster and a greasy feel. Graphite's varied characteristics make it a highly desirable material for industrial components and processes.

- High thermal resistance
- Low friction and self-lubrication
- High electrical conductivity
- High thermal conductivity
- Low "wettability" by liquid metals
- High resistance to neutron radiation

## LEADERSHIP

**Dengyong Jin, General Manager and Founder** - since 2001; twenty years experience in carbon graphite production; nationally recognized business entrepreneur; degree in economics from the Inner Mongolia Television University of China; owns 67% of China Carbon Graphite Group common stock.

**Donghai Yu, President, Chief Executive Officer, Director** - since December 2008; previously chief financial officer since December 2007; master of business administration from Oklahoma City University.

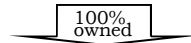
**Hongbo Liu, Director** - since November 2008; professor at Hunan University Department of Non-Metallic Materials; doctorate degree in engineering from Hunan University.

**Ting Chen, Chief Financial Officer, Director** - since December 2008; experience with PriceWaterhouseCoopers, Alternative Investment Funds Group; bachelor degree in accounting and economics from City University of New York; certified public accountant in U.S.

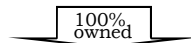
## ORGANIZATION

China Carbon Graphite Group is a U.S. company doing business in China through its wholly owned subsidiaries, Talent and Yongle. To satisfy restrictions on foreign ownership of Chinese companies, the Xingyong operations are controlled through a series of contractual agreements with a Chinese variable interest entity.

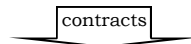
**China Carbon Graphite Group, Inc.**  
U.S. Public Corporation, Nevada Domicile



**Talent International Investment Ltd.**  
British Virgin Islands



**Xinghe Yongle Carbon Co., Ltd**  
Chinese Variable Interest Entity

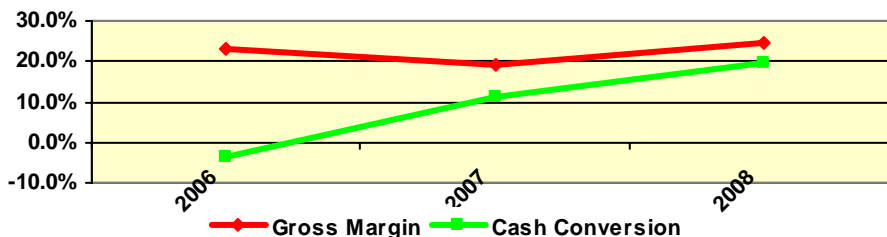


**Xinghe Xingyong Carbon Co., Ltd.**  
Operating Company

## OPERATING RESULTS

	<u>2006</u>	<u>2007</u>	<u>2008</u>	<u>2009 Estimate</u>
Revenue	\$17.2	\$25.4	\$27.3	\$30.0
Operating Income	\$ 3.1	\$ 3.6	\$ 4.2	
Net Income	\$ 2.7	\$ 3.6	\$ 3.1	
Earnings Per Share	\$0.26	\$0.34	\$0.21	
Cash Flow	(\$ 0.6)	\$ 2.9	\$ 5.4	\$ 6.0
Capital Expenditures	\$ 0.2	\$ 2.4	\$ 3.9	
Free Cash Flow	(\$ 0.8)	\$ 0.5	\$ 1.5	

Dollars in millions except EPS; Fiscal year ends Dec.



Source: Company Reports and Crystal Equity Research Estimates

## BALANCES

	<u>12/07</u>	<u>12/08</u>
Cash	\$ -0-	\$ 0.1
Current assets	\$21.1	\$21.7
PP&E, net	\$19.6	\$21.0
Total assets	\$43.6	\$48.3
Accts. Payable	\$ 1.0	\$ 1.3
Cur. Liabilities	\$15.3	\$ 9.6
Long-term debt	\$ -0-	\$ 3.2
Equity	\$28.3	\$35.5
Return on Assets	8.3%	6.4%
Return on Equity	12.7%	8.7%
Tot. Debt/Equity	0.41	0.28
Days Sales Outstanding	70	56

Dollars in millions

Source: Company Reports

## CAPITALIZATION

Recent Price:	\$0.40 (5/6/09)
Shares Out:	14.0 M
Market Capital:	\$ 5.6 M
+ Preferred Stock	\$ 1.2 M
+ Debt	\$10.0 M
- Cash	\$ 0.1 M
Enterprise Val:	\$16.7 M
Book Value:	\$35.5 M
Working Capital:	\$12.1 M

Balance sheet figures as of 12/31/08

## 2009 CAPITAL NEEDS

Bank loan payment	\$4.9 M
Yongle payment	\$0.1 M
Maintenance capex	\$2.5 M
Capacity expansion	
New equipment	\$8.0 M
Working capital	\$2.0 M

Source: Crystal Equity Research Estimates



1040 Avenue of the Americas, Floor 24  
New York, NY 10018  
www.crystalequityresearch.com

Phone: 212-400-7519  
E-mail: info@crystalequityresearch.com

*Illuminating investment opportunities in small capitalization companies....*

CER Focus Reports are published by Crystal Equity Research, an alternative resource for company-specific research on small-capitalization companies in selected industries. Our mission at Crystal Equity Research is to provide our investing clients with alpha-generating analysis of a company's investment potential. We offer a non-consensus examination of financial performance as well as value-creating due diligence on recent events and the company's competitive position.

Crystal Equity Research, LLC is a Registered Investment Advisor in the State of New York. All of our work is guided by the *Code of Ethics and Standards of Professional Conduct* set by the Chartered Financial Analyst Institute. We adhere to the *Best Practices Guidelines Governing Analyst/ Corporate Issuer Relations* adopted by the CFAI and the National Investor Relations Institute.

## **DISCLAIMER AND DISCLOSURES**

**Disclaimer:** *Any opinions expressed in this publication are statements of judgment at the publication date and are subject to change without notice. Information herein comes from independent sources believed reliable, but accuracy is not guaranteed. This publication is not an offer or solicitation to buy or sell any securities. This publication does not address specific investment objectives, financial situations or particular needs of any recipient. The information herein is provided for general information purposes only and should not be considered an individualized recommendation. The security or industry discussed in this report may not be suitable for all investors.*

*All investments involve risk. All recipients are encouraged to use multiple sources of investment information and to actively monitor their holdings. Investors may review information concerning the profiled companies available at the web sites of the U.S. Securities and Exchange Commission (SEC) and the Financial Industry Regulatory Authority (FINRA). Additional information on investment newsletters and Internet stock fraud is also available from the SEC and FINRA.*

**Disclosures:** *Neither Crystal Equity Research nor any of its employees or affiliates have a beneficial interest in the securities of the company profiled in this publication unless otherwise specifically disclosed here.*

*No employee or affiliate of Crystal Equity Research serves on the board of directors of the company profiled in this publication.*

*Crystal Equity Research does not provide investment banking or advisory services and has not provided such services to the company profiled in this publication.*

*Crystal Equity Research received compensation for coverage of the company profiled in this publication. The CER Focus Report subscription fee of \$3000 was paid in cash in advance by China Carbon Graphite.*

*Crystal Equity Research retains complete editorial control over and all copyrights to CER Focus Reports.*