



## Iván Cisneros

### Education

- PhD. in Petrochemistry, Heterogeneous Catalysis, Université de Poitiers - FR, 1999.
- MSc. in Science, Petrochemistry, Université de Poitiers - FR, 1996.
- BS in Chemical Engineering, UNICAMP - SP, 1988.

### Specialties

- Career in Production Engineering, Process, Project Management, Quality, Environment and R&D in many industrial sectors such as: food, chemical, pharmaceutical, petrochemical and mining;
- Experience in Managing multi-functional teams, supervising up to 600 employees in different areas: project engineering, quality, R&D and Mining/Production/Maintenance;
- Managing activities and teams on factory floor, adopting effective and low-cost solutions;
- In charge of the Operational Processes Control, through the definitions and supervision of Key Indicators, focus on maximizing operational efficiency and quality, reducing production costs;
- Cost Management and the elaboration and management of the annual budget, defining investments in the industrial and R&D areas, based on the strategy and guidelines of the company for future forecasts;
- Development of the Strategic Planning with the Sales/Marketing and Financial departments;
- Management of the development of new products and alternative raw materials according to market tendencies and clients demands, focusing on optimizing and modernization of the production process, following the internal and external production tests, assuring cost reduction and production efficiency;
- Experience in optimizations of process on production plants, implementing continuous development programs and SPC (Statistical Process Control), with significant cost reduction and quality improvements;
- Developing new processes and products with high added value and application of state-of-the-art technology;
- Implemented a new consulting business in the environment area, with new services, like: Environmental Impact Assessment Air Quality, Micro and Hydrobiology analysis;
- Commercial/Technical trips to the US, Canada, South America, Europe, Japan and China to assist clients, prospect new markets, visit customers, equipment suppliers, research centers, prospect/acquire new technologies and establish partnerships.

### Languages

- Native Portuguese
- Inglês, Francês e Espanhol, fluentes.

### Courses

- Franco-Portugais Catalyse Bifonctionelle – Applications en Raffinage, Petrochimie et Chimie Fine”, Université de Poitiers/FR - 1998;
- “Challenges in Hydrocarbon Chemistry for the 21st. Century”, Université de Poitiers/FR - 1999;
- “Southern Hemisphere Meeting in Mineral Technology”, Rio de Janeiro/RJ – Brazil - 2001;
- Screening – ABM – São Paulo, Brazil - 2002
- “203rd Meeting of The Electrochemical Society”, Paris/FR - 2003;
- Power Metallurgy – IPT – São Paulo, Brazil – 2004;
- “Carbon 2004: An International Conference on Carbon”, Brown University, Providence, Rhode Island/EUA – 2004 - “Properties of expanded graphite produced from Brazilian natural crystalline graphite” – Poster.



- “The1st International Conference on Carbon for energy storage and environment protection CESEP’05”, Orléans/France – 2005 - “Brazilian Natural Graphite as a precursor of high porosity expanded graphite for heavy oil adsorption”;
- “13th International Symposium on Intercalation Compounds”, Clermont-Ferrand/France – 2005 - “Properties of H2SO4-GICS produced from Brazilian Natural Crystalline Graphite”

## Professional Experience

### ***2014 – Present: MiningMath Associates – Belo Horizonte/MG - Brazil***

- Sênior Consultant Engineer

### ***2006 – Present: Ambiental Consultoria e Engenharia de Processos Ltda - Belo Horizonte/MG - Brazil***

- Director/Owner

## MAIN CUSTOMERS

### ***2017 – Presente: Syrah Resources Limited – Perth, Austrália***

#### **Technical Consultant**

- Technical Consulting for evaluation of the productive process, chemical concentration development of through acid leaching on a bench scale, filtration, and neutralization.
- Optimization of operational parameters aiming at obtaining high value-added products with low cost.

### ***2016 – 2017: CBG Mineração - Minas Gerais, Bahia - Brasil***

#### **Technical Consultant**

- Technical / commercial consultancy for evaluation of new ore deposit (Graphite) for incorporation into the group. Study of reserves, ore characteristics / Related applications, market, processos development in a pilot plant and business plan correlated to a products profile.

### ***2014 – Presente: TRU Group Inc – Tucson, EUA and Toronto - Canada***

#### **Technical Consultant**

- Consultants to evaluate the technical / commercial potential of graphite ore in the North American continent. Study of ore characteristics and suggestion of related applications, market, definition of the production process with sizing and pricing of equipment and participation in preparing the business plan.

### ***2013 – Presente: Mineração Lunar – Rio de Janeiro - Brasil***

#### **Technical Consultant**

- Technical / commercial consultancy for evaluation of new ore deposit (Graphite) for incorporation into the group. Study of reserves, ore characteristics / related applications, market, process development in a pilot plant and business plan correlated to a products profile.

### ***2012 - 2013 – Magnesita – Belo Horizonte - Brasil***

#### **Technical Consultant**

- Development of chemical concentration via acid leaching bench scale process (Graphite).
- Optimization of operating parameters with the goal of obtaining products of high added value with low cost.
- Defining methods of analysis.

### ***2011 – 2012: Sibelco – São Paulo/SP - Brazil***

#### **Technical Consultant**

- Consulting Technical / commercial evaluation of mining for incorporation to the group;
- Study of reserves, mines, production process and production facilities and laboratories for analysis.

### ***2009 – 2011: Nacional de Grafite Ltda – Itapeçerica/MG e São Paulo/SP - Brazil***

#### **Commercial and Technical Responsible**



- Analysis, diagnosis and resolution with technical and financial difficulties in the Operations/Technical and Commercial areas.

Main results obtained:

- Increase of 24% in revenues compared with the best year of the past 10 years, equivalent to a rise of 7,6% in volume of sales;
- Reverted loss of -10% to positive 12% in net profits, in a short period of nine months;
- Defined investments for the plant expansion, aiming to have new products of high value added with new technologies involved;
- Obtained international commercial and investment partners for these new products, with long term contract of minimum of five years.

***2006 – 2009: SGS GEOSOL Laboratórios Ltda – Belo Horizonte/MG - Brazil***

**Environment Division Manager:** reporting to the Director-President

- In charge of strategic, commercial and operational planning; budget and cost control for the division;
- Responsible for increasing the services offered, diversifying the company focus, implemented Hydrobiologic, Air quality sampling and carbon compensation analysis;
- Started the Environmental Consulting business, EIA/RIMA implementation;
- ISO 17,025 implementation;
- In charge of managing the new company site construction (10.000 m<sup>2</sup>) and all the moving process, from its furniture to its laboratory infrastructure;
- Optimization of the company's new infrastructure, focus on improving clients demands and maximizing Efficiency;

***2000 – 2005: Nacional de Grafite, Itapecerica/MG - Brazil***

**General Technical Manager**

- Managing 600 professionals, in Quality Control, three Production/Mining Plants, Engineering, Research and Process Development areas;
- Technical support and negotiate specifications with to foreign customers, establishing a flexible production process;
- Participation in technical and commercial negotiations with managers and senior management in Brazil and abroad;
- Contacts with research and technological centers and universities to establish partnership, with co-development technologies or licensing patents;
- Using statistical techniques to access deviations in analysis/methods, allowing the reduction of internal approval limits and rejection rate;
- Management the expansion projects of two production plants in 40% and 100% of their capacities, US\$ 3,5Mi forecast;
- Optimizing chemical purification process and consequently reducing load for discharge treatment station, cutting production cost by US\$ 250,000/year;
- Development of new synthesis route to obtain a intercalation graphite reducing 60% of the production cycle and increasing the number of available grades from 3 to 15, therefore improving and diversifying its end-user applications;
- Development a laboratory to assembled alkaline batteries, enabling the development of new grades of graphite and efficiently performing comparison tests, allowing Nacional de Grafite results to be close to the ones from the battery manufacturers. Later it became an excellent tool for marketing and technical sales assistance;
- Management the expansion projects of two production plants in 40% and 100% of their capacities, US\$ 3,5 Mi forecast;
- Development of new processes in pilot plant scale studying pre-concentration steps with many operation units such: spiral, column flotation, new mills, screen and cyclone;
- Optimization of the concentration process increasing 2,5% of the carbon content and 6% of the recovery;
- Exchange filtration system reducing the moisture in 24%, cutting energy costs in US\$ 140.000 /year;
- Water dam project and construction, and system pump management, cutting energy costs in US\$ 160.000/year;
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**1996 – 1999: UNIVERSITÉ DE POITIERS/IFP – INSTITUT FRANÇAIS DU PETROLE, Poitiers/FR**

**Researcher**

- Doctorate in Heterogeneous Catalysis, with scientific research in the petroleum refining area, involving the hydrocracking process;
- Automating equipment in hydrocracking pilot unit, computerizing on-line chromatography gas analysis system;
- Main techniques used in company: mass spectroscopy, HPLC gas chromatography, on-line chromatography gas analysis piloted by computer, and high-pressure pilot reactors;
- Developing Intranet to automate equipment in pilot scale;
- Preparing theses and defense, training and co-mentoring master's student responsible for research.

**1991 – 1995: DOW ELANCO – ELI LILLY, Cosmópolis/SP - Brazil**

- (1994 # 1995) Supervising Industrial Waste Incineration Unit (9,000 tons/year), involving discharge treatment, biological treatment and utilities;
- (1991 # 1994) Production Supervisor responsible for the finished product synthesis and formulation areas, reducing discharge production by 30%, expanding plant capacity by 25%, implementing CEP and optimizing process operations sequence in group with 15 reactors operating simultaneously.