



Curriculum Vitae of Joseph J. Poveromo

Ph.D.(1974) and M.S.(1971), Chemical Engineering, Center For Process Metallurgy, State University of New York at Buffalo

B.S. Chemical Engineering, Rensselaer Polytechnic Institute, 1968;

PROFILE

I have achieved considerable success in the marketing of ironmaking and steelmaking raw materials, advising on the improvement of plant operations and the process/economic assessment of operating and marketing strategies. I am an internationally recognized steel industry authority on the technical and economic aspects of ironmaking (blast furnace and direct reduction), ironmaking raw materials (iron ore, coke) including sintering and pelletizing processes, iron ore mining, processing & properties, steelmaking metallics (merchant pig iron, DRI, HBI) as indicated by my extensive client base, publications, presentations and honors.

EXPERIENCE

1993-present - RMI (Raw Materials & Ironmaking) Global Consulting - President

Principal clients: **CRU International**, Steel & Iron Ore Consultant, **Anglo American Iron Ore, Outotec, Nippon Steel, Ironton**

Principal client (1993-2008): ArcelorMittal Mines Canada (ex-Quebec Cartier Mining Co.); Director of Technology-International - technical marketing (introduced QCM concentrate to North American, Asian, E. Europe sinter plants and to IDI hot metal process; introduced QCM DR pellets to Mid-East, South America, SE Asia Midrex DR plants providing consulting on iron ore pellet, sintering ore quality improvement, technical service to QCM customers on sinter plant, blast furnace operation, iron ore product development (lower SiO₂ concentrate, lower SiO₂ fluxed pellets, improved DR grade pellets), explored alternative ironmaking for QCM ores.

Technical consulting for other clients:

- Steel and Metallics Companies: Nippon Steel, Posco, Hebei Steel, Steel Dynamics, Inc., Nucor, Usiminas, Algoma, Geneva Steel, USSteel, ArcelorMittal, AK Steel, SeverstalNA Dearborn, RG, Kobe, Yamato Kyogo, International Materials Corp, North American Iron Corp, Evraz, Metalloinvest, Mesabi Metallics, Severstal, Arvedi
- Resource Companies: S&B Industrial Minerals, Rio Tinto Iron Ore, Labrador Iron Mines, Kerr McGee, LaFarge Corp, Yara, InZinc, Linde Industrial Gases, Praxair, Rio Tinto Iron & Titanium, Kumba Iron Ore (South Africa), New Zealand Coal, Sun Coke(SUNOCO), AngloAmerican Ferrous, Garder Resources, Northland Resources, Diproinduca, Ridgemont, LKAB, Nevada Copper, Glencore, Essar Minnesota, Black Iron, Century Iron Ore, Bryanston Resources, Teck Coal, InZinc, FrancoNevada, Lhoist, Magnetation, DTE, Minnesota Power, Air Products, ERP Iron Ore, Cargill
- Engineering Companies: Outotec, Worley Parsons, Behre Dolbear, E & E Engineering, ICF Kaiser, Midrex, Browning-Ferris, Plasma Processing, IMC Montan, Met-Chem, Roche, CAN Technologies, Barr, Tenova HyL
- Transportation, Utility Companies: Interlake Steamship, Minnesota Power, Tokyo Electric Power Co.,

- Consulting Companies: CRU, World Steel Dynamics, Hatch, Midland Standard, Inc., Andersen Consulting, Paul Blum, Inc., Intertech Pira, Metal Strategies, Inc, GLG Consulting, Raw Materials Services, Bennion, Metal Industries Advisory Group, McKinsey, Wood MacKenzie, Ferrum, RCG(Research Consulting Group)
- Government, business, professional organizations: AISE, ISS Brazil, IAS Argentina, Hot Briquetted Iron Assoc, Gas Research Inst, Australia Black Coal, Environment Canada, Bolivar Republic of Venezuela, Province of Newfoundland, KOMERA (Korea Metals Research Assoc)
- Financial: Rosspart Investments, Greenwich Investments, many others through expert networks (GLG, Coleman, Ridgetop, Alpha Insights)
- Other: Steel Times International, **Law Firms**

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1974 - 1993 - Bethlehem Steel Corporation, Research Department,

- Provided technical leadership for Raw Materials & Ironmaking Research & Technology including sintering, blast furnace facilities and affiliated iron ore facilities. Served on Bethlehem's Corporate Raw Materials Management, Iron Ore Advisory, Coke Oven Facility, and Ironmaking Technical Committees.
- Project leader: blast furnace charging practices, process control & data acquisition systems, refractory & cooling systems, pellet property improvements,
- Internal consultant: to Accounting, Engineering, Purchasing, Natural Resources Dept. on issues of raw materials, furnace design and process economics;

1970-74 State University of New York at Buffalo, Center for Process Metallurgy, - Research Assistant – blast furnace aerodynamics, high temperature processes

PROFESSIONAL SOCIETIES:

AIST (Association of Iron & Steel Technology) successor organization to ISS,AISE:

Iron and Steel Society of AIME: former Director and Past Chairman of Ironmaking & Process Technology Divisions, Technical Program Chairman for ICSTI' 98, Key Reader-Transactions of ISS, **Distinguished Member**

Association of Iron and Steel Engineers: Member of Iron Producing Committee, Organizing Chairman: Injection Symposium, 1996

American Institute of Chemical Engineers

Eastern States Blast Furnace & Coke Oven Assoc.

Society of Mining Engineers

PUBLICATIONS, LECTURES, SHORT COURSES - see attached list

HONORS:

- **Plenary Lecturer** – Fifth International Congress on Science and Technology of Ironmaking, Rio de Janeiro, Brazil, Oct. 2012
- **Special Member – IIMA (International Iron Metallurgy Assoc.), formerly HBIA** (Hot Briquetted Iron Assoc., March 2009)
- **Honorary Chairman**, COREM Pelletizing Symposium, Quebec City, June 2008
- **Plenary Lecturer** - Fourth International Congress on Science and Technology of Ironmaking, Osaka, Japan, Nov. 2006
- **John Chipman Award**, 2000, Process Technology Division, Iron & Steel Society, "for best paper in ISS publications"
- **T. L. Joseph Award**, ISS, 1998, sustained contributions to ironmaking technology
 - **Invited Lecturer** - Symposium for 250th Anniversary of Jernkontoret, Stockholm, Sweden, June, 1997

- o **Distinguished Member of Iron & Steel Society**, AIME, 1994 -
- o **Keynote Lecturer** - First International Congress on Science and Technology of Ironmaking, Sendai, Japan, June 1994
- o **John Farrell Award**, 1986, for service as Chairman of Process Technology Div. and Director of Iron & Steel Society
- o **John Chipman Award**, 1984, Process Technology Division, Iron & Steel Society, " for best paper in ISS publications"
- o **J.E.Johnson Award**, 1981, Ironmaking Division, Iron & Steel Society, " for improved furnace charging methods"

PERSONAL: married, with two grown children (one attorney, one economist)