

Parfait Jean Marie Likibi, PhD

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INNOVATIVE, ACTION-BIASED, INSPIRATIONAL, MULTI-LINGUAL GLOBAL TECHNOLOGY AND BUSINESS

LEADER Recognized abilities to combine **products/materials, coatings innovation** and production process technology. Skills set built on solid foundations in engineering, chemistry, coatings, polymers, materials processing and business acumen. Developed reputation of providing team members additional growth and leadership opportunities. **Strong cross-functional experience** in **Technology** and **Marketing: Chief Technology Officer, Director of R&D and Innovation** and **Director of Market Development**. Recognized expertise in **organic, inorganic chemistries, heterogeneous catalysis and polymer chemistries including Atom Transfer Radical Polymerization (ATRP), and processing (Extrusion, Molding) of filled and unfilled polymers**. Has developed a keen strategic understanding of Polymers chemistry and coatings including challenges and opportunities in the midst of current market conditions. **Entrepreneurial spirit**, change agent and consummate leader with impeccable communication, presentation skills and a solid record of forging and managing relationships with **internal** (manufacturing, marketing and digital technology) and **external** stakeholders, including customers, suppliers, regulators and government officials. Experience spans North America, Asia, Europe and Africa. Author and Co-Author of more than **20 US patents**.

- Medical Devices - **Dental restoration**: Conceived and led the development of novel products with higher positive charge density for improved antimicrobial activities: novel **cements, bonding agents, primers and composite products**. Led from ideation to product development and intellectual property strategy.
- Polymer encapsulated aluminum pigments with self-dispersing and improved orientation. Grafting of **ATRP** Initiator on pigment surface followed by polymerization or copolymerization. Estimated sales of \$10 Million/Year. **(USP 9,139,715; USP 9,062,209 & USP 8,912,252)**

Reorganization and rebuilding of the R&D team. Achieved innovation's renaissance with bottom line impact. Changes led to more than 10 patent applications with 6 already granted. A new production facility was built.

- Designed manufacturing process of Polycarbonate copolymer based on Bisphenol A and Resorcinol. Resulting polycarbonate displays highly improved UV resistance. UV absorber is generated in situ, after photo-Fries rearrangement. Led innovation and process optimization of novel polysulfone/polysiloxane polycarbonate block copolymer with improved fire-retardant profile. **(USP 6,566,261; USP 6,096,853;)**
 - Development and processing of various Polycarbonate, Polyetherimide, Polybutylene Terephthalate and blends therefrom. Commercialization of Barium Sulfate filled PC/PBT blend Enduran.
 - Conceived and developed novel reactive oxanilide UV-absorbers for the protection of polymers in general and polycarbonate in particular. **(USP 5,698,732)**
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Driving Innovation, Sustainability & Growing Profitability

SHAYONANO USA INC. Chester, SC

11/2021- 03/2022

Has developed high refractive index composite pigments to substitute (10 – 20%) titanium dioxide in paints and coatings

VICE-PRESIDENT, TECHNOLOGY AND COMMERCIALIZATION

Chester, SC (11/2021 – 03/2022)

Leading production transfer from pilot scale to manufacturing scale, setting up in-process analytics, and products specifications. Presentation to prospective customers and assisting them in formulating their paint.

NBD NANOTECHNOLOGIES, INC. Lexington, MA

09/2019 – 11/2021

Developed non-fluorinated omniphobic coatings and additives

VICE-PRESIDENT, PRODUCTS MANAGEMENT & INNOVATION

Lexington, MA (10/2020 – 11/2021)

Led EPA's registration of the newly developed broad spectrum virucide and antimicrobial polymeric coatings.

One-step combined synthesis of inorganic nanoparticles and coating formulations: time-saving and lower cost without deleterious impact on quality and performance.

DIRECTOR, PRODUCTS MANAGEMENT & INNOVATION

Lexington, MA (09/2019 – 10/2020)

Market Development and Strategy of Anti-microbial coatings based on omniphobic chemistries (Market Research, Competitive Analysis, Market Strategy etc...) for non-porous surfaces and leather. Developing broad spectrum respiratory virucides (H1N1, H3N2, Human Coronaviruses NL3, OC43, 229E (coating). Patent application by NBD underway.

Conceived novel polysiloxane chemistries allowing lower intensity UV-irradiation curing step to prevent substrate's (leather) yellowing. Major applications: automotive, aircraft & household upholstery.

Found and corrected major products' mischaracterization in a key patent application. New patent was filed enhancing patent protection and coverage.

HENKEL CORPORATION – ADHESIVES TECHNOLOGIES, Bridgewater, NJ

10/2013 – 03/2019

Largest adhesives manufacturer in the world

DIRECTOR, GLOBAL MARKET DEVELOPMENT HEAVY EQUIPMENT & SPECIALTY VEHICLES (HEq/SV)

Bridgewater, NJ (02/2018 – 03/2019)

Overhauling HEq/SV's strategy to accelerate growth and expand market share in established industries: Rail, Agriculture and Construction Equipment, Marine and Caravans and Trailers.

Rail: Technology roadmap to accelerate development of new materials to meet US and EU norms related to fire, safety and toxicity. Introduction of 3D-Printing and Reduction of Aerodynamic Noise.

Agriculture and Construction Equipment: welding replacement with structural bonding and introduction of 3D-Printing.

DIRECTOR, GLOBAL NEW MARKET DEVELOPMENT

Bridgewater, NJ (10/2013 – 02/18)

Identify, assess and advocate new technologies and/or new markets to accelerate Henkel Corporation's growth.

Notable Accomplishments

Initiated Advanced Insulation project for cryogenic liquids (i.e Liquefied Natural Gas – LNG & Liquefied Petroleum Gas - LPG) containment, storage and Transport to reduce BOR (Boil-off rate). Major Global Oil and Gas company involved in due diligence to license the technology.

Built strong relationship with key decision makers at KOGAS, KCLNG, Hyundai, TOTAL, IBERFLUID, GTT, Hankuk Carbon etc.... all key members of the LNG Value Chain to accelerate Market Introduction.

ATLANTIC GLOBAL CONSULTING, Mount Pleasant, SC

2012 – 2013

Privately owned Chemical Consulting group

PRINCIPAL

Provide strategic and tactical consulting services for R&D effectiveness, New Product Introduction (NPI), Innovation Intellectual Property and chemistry related problem solving. Industries covered include Private Equity Companies, Polymers/Plastics, Coatings, Pigments, additives, Fertilizers, Mining chemistries, Adhesives, Specialty Chemicals, Inorganic and Organic Synthesis.

SILBERLINE MANUFACTURING COMPANY, Tamaqua, PA

2007 – 2012

Privately owned top three global manufacturer of aluminum pigment and modified aluminum pigment

CHIEF TECHNOLOGY OFFICER

Led global R&D and innovation of aluminum-based pigments resulting in the acceleration of new technologies development, market introduction, and acquisition opportunities. Served as key member of the Global Operating Board (GOB) charged with setting and executing corporate strategy.

Notable Accomplishments

Led team of 20 scientists and managed \$5M budget for two global R&D sites located in Tamaqua, PA and Leven, Fife, UK.

Surface functionalization: Surface Initiated Polymerization starting from a trialkoxy- silane terminated Atom Transfer polymerization initiator (ATRP) for better dispersion and compatibility with coating systems. New manufacturing facility built for surface functionalized aluminum pigments including water resistant pigments. Estimated sales of \$10 Million/Year.

Drove six-fold increase in number of invention disclosures to 36 in three years, filing eight patent applications with five (5) granted.

SUN CHEMICAL, Bushy Park, SC

2004 – 2006

Subsidiary of Japanese company DIC

PRODUCT MANAGER AND HIGH-PERFORMANCE PIGMENTS TECHNOLOGY DIRECTOR

Led Innovation, R&D, market introduction and new technologies acquisition. Promoted to Product Manager High Performance pigments (additional function) portfolio valued at \$65M.

Notable Accomplishments

Conceived and developed new continuous process for manufacture of Quinacridone pigments for inks and automotive coatings without impacting performance. 25% reduction in manufacturing cost.

Led R&D of 10 scientists and \$2M budget to achieve 18 disclosures of invention and five patent applications in 16 months.

REDOX LABORATORIES, Mount Vernon, IN

2003 – 2004

PRINCIPAL

Established and managed independent laboratory focused on novel anti-microbial agents for hospitals and food supply chains in response to global H1N1 threat.

Notable Accomplishments

Developed soluble polymer-based anti-microbial agents.

GENERAL ELECTRIC COMPANY (GE), Fairfield CT

1994 – 2003

GE Corporate, Johannesburg, South Africa/Cairo, Egypt (2002 – 2003)

REGIONAL EXECUTIVE – GE, AFRICA

Executive in charge of growth and relationship management with customers and governments throughout the African continent. Managed and split time between offices in Johannesburg and Cairo.

Notable Accomplishments

Forged strong working partnerships with high-level political and economic leaders of most vibrant African countries: South Africa, Egypt, Nigeria, Morocco, Tunisia, Angola, Congo, Ivory Coast, Senegal and Botswana.

Worked closely with US and France Export and Import banks to secure funding.

Strong relationship with local governments and Export-Import banks resulted in faster projects completion.

GE Plastics, Pittsfield, MA (1999 – 2002)

VENTURE TECHNOLOGY LEADER – BUSINESS DEVELOPMENT

Formal training in Mergers and Acquisitions

Spearheaded overall vision and initiated strategy to spur top-line growth and drive business expansion by identifying and conducting due diligence of light management companies as merger and acquisition targets.

Notable Accomplishments

Identified new growth segment with \$500M revenue opportunity and established LCD light management film, LCD and OLED barrier films as strategic high growth market segments.

GE Plastics, Mount Vernon, IN (1994 – 1999)

GLOBAL MANAGER OF LEXAN(R), ULTEM(R) AND ENDURAN(R) TECHNOLOGY

Promoted from lead scientist to Technology Manager of various Product R&D teams (Ultem, Crystalline) and, advancing to Global Manager of Lexan Technology platform to accelerate innovation.

Notable Accomplishments

Led process development of Lexan SLX (first polymer with structural UV-absorber), targeting automotive applications with projected annual revenue of \$5M.

Transformed "Bisphenol A tar" waste into high value raw material for fine chemicals. This low-cost monomer has been used for creating novel UV-absorbers and polymers. The resulting substrate is also a precursor for aromatic polyamides and Polyamides/Polyesters.

Education, Languages & Patents

International Management Program
Advanced Certificate for Executives in Management, Innovation and Technology
MASSACHUSETTS INSTITUTE OF TECHNOLOGY, SLOAN SCHOOL OF MANAGEMENT, Cambridge, MA

Executive Program
Mergers and Acquisitions Certificate
GENERAL ELECTRIC COMPANY, MANAGEMENT DEVELOPMENT INSTITUTE, Crotonville, NY

Manager Development Course (MDC)
GENERAL ELECTRIC COMPANY, MANAGEMENT DEVELOPMENT INSTITUTE, Crotonville, NY

PhD in Physical Organic Chemistry
SOUTHERN ILLINOIS UNIVERSITY, Carbondale, IL

Ingenieur en Chimie Industrielle/Chemical Engineering and Industrial Chemistry
INSTITUT NATIONAL SUPERIEUR de CHIMIE INDUSTRIELLE de Rouen, France

Languages
Fluency in English & French; working knowledge of German

Patents
Authored/co-authored 20+ US and foreign patents
