

ERNEST DADDEY

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PROFILE

Award-winning, innovative Product Development Materials Scientist, with extensive experience as Research Chemist and Polymer Technologist. Effective communicator, self motivated with demonstrated leadership skills. Consistently pursues new challenges to expand knowledge. Multi-disciplinary skilled, with 18 years of significant achievements in:

- Coordinating projects to integrate inkjet systems for a \$500M commercial digital printing market.
 - Optimizing polymer synthesis, characterization and testing.
 - Printing, packaging, graphic arts and development of offset litho plates.
 - Researching and formulating plastics & rubber compounds for defense and automotive applications.
 - Designing process control procedures for the manufacture and testing micro-electronic devices.
 - Formulating and assuring quality of specialist coatings. E.g. Polymeric passivation, Hydrophobic coatings.
 - Developing spray-coating formulations for flexographic plates and water based inks/ functional coatings to be integrated in inkjet systems.
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PROFESSIONAL EXPERIENCE

Senior Applications Engineer-Consultant

UltraDots Feb 06 –May 06

- ✓ Development of printing application roadmap for novel photoluminescent pigment used in various printing inks and for various printing methods in a number of market segment
- ✓ Provided leadership and direction product development and manufacturing based market intelligence of the present printing sector requirements

Materials Engineer-Consultant

Symbol Mar 05 to Nov 05

- ✓ Research, Product Development, Manufacturing and Implementation of the RFID technology for key players in this printed electronic technology market.
- ✓ Product development (snap cure anisotropic conductive adhesives, antenna manufacture and die attach chip design) and manufacturing of RFID Tags for a range of applications in the 40ft read range.
- ✓ Successfully concluded a proof of product/manufacturing principle to secure funds to build an RFID manufacturing line at Symbol Technologies Inc. e.g. Tag read distances of 36ft

E.O.K. Consulting Inc, Vancouver Consultant/ CEO

April 03- Present

- ✓ Product Development of specialist pigments for Authentication, Anti-counterfeiting, Security printing, brand protection, Forensic work, Tracking& Trace
- ✓ Powder coating project with company marine applications in India and containers used for ship oil derivatives
- ✓ Business Director in the planning the procurement of innovative materials with energy saving capabilities to be used in a 30 acre community construction to serve as a benchmark for future developments.
- ✓ Development of \$100M Digital and Analogue printing market by working with clients/suppliers for the procurement of raw materials and equipment for printed electronics.
- ✓ Conductive inks formulation for security printing and printed electronics applications.

CREO INC, Vancouver-- PROJECT MANAGER (2003 - 2005)

- Recruited personnel resulting in savings of 40% of budget within six-month duration.
- Led, planned, organised and validated the Switchable Polymer Processless Project within designated timelines while meeting the end product specifications.
- Defined tasks and ensured that the team understood the project goals; provided both technical and project leadership in order to achieve milestones in the product development.
- Directed Switchable Polymer (SP) Litho Plate scale-up coating trials by liaising with manufacturing partners and acting as the key technical support for this project.
- Negotiated with materials manufacturers to maintain consistent quality, and cost effective materials to produce products that met design specifications resulting in cost reduction of 70%.
- Improved polymer synthesis consistency by reviewing procedures and making recommendations for process optimisation that improved yield and supply of polymeric material for \$10M per annum coating business globally which resulted in 30% reduction of polymer batch cost.

MATERIALS RESEARCH CHEMIST – THERMAL CONSUMABLES GROUP CREO (2002 - 2003)

- Successfully developed novel ink formulations for coatings used in the preparation of mask used in imaging flexographic printing plates and for gravure printing.
- Researched, and designed experiments for the procurement of additives that improved lifetime of coating by 50%.
- Analysed, validated material characteristics and wrote specifications for new products.
- Participated in pilot line trouble shooting activities with customers to aid launching of products at international graphic arts exhibitions and beta sites.

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CONSULTANT, UK

2002

- Developed and reviewed projects in Inkjet technology integration, specialist coatings for device fabrication and graphic arts consumables, development and formulation of specialist inks, resolving and implementation of materials compatibility issues in materials selection.
- Advised a number of small to medium size business entrepreneurs on manufacturing and procurement of raw materials for device fabrication.
- Produced proposals and framework for a successful consumables fabrication by deploying a contract powder coating process for cosmetic and corrosion protection.

XAAR TECHNOLOGY, UK/Sweden MATERIALS CHEMIST / SCIENTIST 1996 - 2001

- Filed a number of Patents through an R&D programme that resulted in the use of a variety of inks in printheads and increased Xaar's Intellectual Property Portfolio.
- Awarded "Employee of 1997", the first to achieve the award for innovative work in Inkjet Technology device fabrication which increased company's licensing revenue. Published US Patent # 6,634,733.
- Defined specifications for materials, test procedures for the processing latitudes for complete system performance for ink, printhead device and media.
- Developed (polymeric passivation), which was used in manufacturing processes and printing applications.
- Pioneered, initiated and implemented materials/fluid compatibility database by developing and implementing test methods and operating procedures which aided chemists and engineers having a wider selectivity of printhead architecture materials.
- Advised and resolved printhead and ink compatibility issues during testing, printing and reliability performance at beta-sites by coordinating a multi-discipline team.
- Successfully completed the procurement and validation of new materials used in Excimer Laser Ablation of thin films during printhead manufacture in order to standardise and improve process consistency.
- Formulated adhesives compounds for strengthening PZT piezo actuators using nano particles powder reinforced epoxies which resulted in improved printhead performance and increased operation reliability.

STANDARD PRODUCTS, UK/Germany- MATERIALS ENGINEER/TECHNOLOGIST 1995 - 1996

- Developed/implemented coating line for plastics from prototype build to manufacture.
- Initiated and developed documentation to standardise compounds manufacture for plastics and rubber components that improved yield through experimental designs.
- Co-ordinated a team of engineers and chemists to improve product development.
- Established a procedure to review coating performance and lowered component cost by 80%.

RRP LTD, UK -TECHNICAL/MARKETING DIRECTOR

1995 - 1996

- Advised an official of the UK Department of Trade & Industry on technical issues with regards to plastics. Graphic arts and packaging materials in the Middle East.
- Increased my experience in project management and developed skills in marketing by taking part in implementing and executing change, negotiations and securing procurement contracts for a range of advanced materials.

W.R. GRACE Ltd. France**1989 - 1995****Product Development Chemist, (1993-1995)**

- Introduced PC-based batch system for photopolymer synthesis resulting in improved production process control and reduced production-staffing levels by 50%.
- Conducted synthesis optimisation as a member of team that developed photopolymer products by improving yield from 70% to 95%, for a global graphic arts market.
- Transferred pilot projects to large-scale production and launched a number of products.
- Liaised with materials suppliers, subcontractors, and customers on and quality control issues that led to ISO 9001 certification using FMECA, TQM and SPC techniques
- Relocated manufacturing plant from UK to France and successfully built a Process and Quality Control lab resulting in yield of polyurethane based photopolymers by 40%.

POLYMER CHEMIST, UK (1989 – 1992)

- Contributed to patents applications and launching photopolymers for the flexographic printing.
- Provided advice on process control, methods for resolving manufacturing inconsistencies and improved product stability performance and reliability
- Reviewed manufacturing of photopolymers by liaising with vendors and production staff that resulted in a saving of £250K PA, improved yield and product consistency.

AVON ENGINEERING PRODUCTS, UK -POLYMER TECHNOLOGIST**1988 - 1989**

- Developed an effective polymeric compounds resulting in over 30% cost savings of components used by defence contractors, which significantly improved repeatability, reliability and performance to a defence establishment and improved profit margins by 15% of products.
- Achieved 50% reduction in manufacturing cost of compounds by a non-compromise review.

EDUCATION & PROFESSIONAL DEVELOPMENT

BSc. (Hon) Materials Science, Greenwich University, London, UK

Graduate PRI Plastic & Rubber Institute, Trowbridge College, Wiltshire, UK

Certificate of Achievement – Scanning Electron Microscope Operator Course

Certificate of Achievement - Design of Experiments (ECHIP)

Completed short courses as part of continuous professional development:

- Project Management
- Total Quality Management
- Analytical skills in Polymer Synthesis and Characterisation
- Coating application methods for various coatings chemistries.