

MICHAEL P. BIGWOOD

512 Wischman Avenue
Oreland, PA 19075
(215) 884-9370
mpbigwood@aol.com

OBJECTIVE: Provide consulting services in the area of polymer technology, including technical support, technology assessments and strategic technology planning .

BACKGROUND Ph.D. Chemist with 14 years experience in polymer related technical consulting,
5 years of R&D management experience in a global, technology-driven specialty chemical company and 13 years of academic and industrial research experience.

Particular expertise in:

- Strategic technology analysis and planning
- Research project management
- Polymer synthesis and manufacturing process development
- Ion exchange, catalysis, waste treatment, bioseparations
- Polymer supports for solid phase synthesis
- Fluent in English and French, some Dutch and Italian

PROFESSIONAL EXPERIENCE:

POLYMER PHASES, Inc. Oreland, PA

1995 - current

Vice-President and CTO

Technical support

- Helped a pharmaceutical company develop meaningful specifications for an outsourced polymeric material and identified second commercial source, thus ensuring consistent supply of this key ingredient
- Wrote two chapters reviewing recent technology developments (“Hybrid inorganic/organic catalysts” and “Macroporous Organic Polymers”) for the Catalyst Group’s multi-client study on “Macroporous Catalytic Materials and Ultra-Large Pore Zeolites”.
- Helped a specialty chemical company scale-up a suspension polymerization process from the laboratory to the 50 L scale
- Helped a laboratory supply house develop their polymer product line strategy

ROHM AND HAAS RESEARCH DIVISION, Spring House, PA

1981 - 1994

Planning Associate

1993 - 1994

Provide the Vice President for Research with an assessment of the research division’s activities from the perspective of maintaining long term competitiveness.

- Analyzed the Research Division projects portfolio and tested for alignment with business strategic objectives
- Identified technical core competencies and tested their ability to sustain competitiveness in a variety of scenarios

Research Section Manager, Ion Exchange Products and Applications Development 1989 - 1993

Managed people and projects in a section of 15 to 22 employees (1/3 Ph.D.'s, 1/3 chemists, 1/3 technicians). Projects dealt with products, processes and application development as well as technical service.

- Participated in a team charged to identify how to improve research productivity. We identified project management as a highly leveraged element. The stage/gate project management process was subsequently implemented throughout the division.
- Managed a program in cooperation with an academic laboratory to demonstrate the superiority of our new catalyst in a major petrochemical application. The catalyst became the recommended product by the process licensor and was commercialized.
- Lead a marketing, plant, regulatory and legal team that demonstrated feasibility of retrieving spent catalysts from customer sites for regeneration into new products. This approach met customer needs and reduced manufacturing cost by 30%.
- Defined and implemented a system for managing plant process changes working with the plants worldwide. Program insured consistent product quality and customer satisfaction, worldwide.
- Initiated a program to automate routine, labor intensive operations. Saved a full person's time for more creative activities.
- Identified employee with potential for management career path and coached him to broaden his skills. He later moved to a new assignment with increased responsibility.

Sr. Scientist, Bioprocessing Research 1986 - 1989

Provided polymer synthesis and functionalizations as well as application support for bioseparation project, supervising up to three people.

- Developed polymeric reverse phase chromatographic packing suitable for preparative separation of polypeptides and small proteins which allowed us to penetrate a new, high profit market segment.

Sr. Scientist, Fluid Process Chemicals 1981 - 1986

Provided polymer synthesis and functionalization as well as application support for acrylic and special application resins. Supervised one technician.

- Developed a patented high capacity, low rinse acrylic anion exchange resin.
- Developed immobilized enzyme testing capabilities for the laboratory and tested competitive products. This led to the development of an improved (patented) polymeric support for the application.

PRIOR EXPERIENCE:

Research Associate, Dept. of Inorganic Chemistry 1979 - 1981 University of Oklahoma, Norman, OK
Lecturer, Dept. of Organic Chemistry 1978 - 1979 University of Brussels, Brussels, Belgium
Research Associate, Swiss Institute of Technology 1976 - 1978 Zurich, Switzerland

EDUCATION:

Ph.D. in physical organic chemistry, University of Brussels (1976) Brussels, Belgium.
Awarded the "Prix Jean Stas" by the Belgian Academy of Arts and Sciences (outstanding Ph.D. dissertation)
B.S. in chemistry, University of Brussels (1972) Brussels, Belgium

AFFILIATIONS:

American Chemical Society
Chemical Consultants Network (Chair, 1999-2002))