

Corporate Profile

Effective March 1st, 2016, Hellma Group acquired the business of Axiom Analytical Inc. and founded Hellma Axiom, Inc. The Hellma Group is a German based company and leading manufacturer of optical solutions for the process industries and research and analytical laboratories. Home of high precision solutions Hellma lays the foundation for reliable measurement results in optical analysis. The company's efficiency and advisory skills make it the favored partner in industry, research and science. Hellma is the optimal combination of know-how and competence expected of a global player with personal support and knowledge that can only be provided by a local partner. Thanks to a global network of subsidiaries and agencies Hellma is close to its customers, guaranteeing smooth collaboration on site.

Axiom Analytical, Inc. was founded in 1988 by Dr. Mike Doyle and Norm Jennings, pioneers in the field of process FTIR spectroscopy. The company's mission at its inception, was to develop and manufacture robust sample interfacing equipment required to fully realize the potential of vibrational spectroscopy for industrial near-line and on-line chemical analysis.

Several of the sampling devices developed and marketed by Axiom are, in effect, "key-stone" products - making it possible to monitor chemical composition at locations, or under conditions, previously thought impossible. The company's broad line of optical transfer and multiplexing equipment enable these products to be linked into comprehensive sampling systems to meet the diverse requirements of the chemical process industries. Axiom's customer base includes general and specialty chemical producers, the petrochemical industry, pharmaceuticals, and the polymer and environmental industries.

In pioneering the application of vibrational spectroscopy to chemical processing, Axiom and its founders have often been at the forefront in applying novel optical concepts to practical real-world tasks. This has resulted in a number of significant commercial advances, including the first ATR immersion probes; the first ATR flow cells; the first sparging-IR water analysis system; the first diamond ATR cells and probes; the first high temperature, high pressure NIR transmission probes; the first bi-directional fiber-optic multiplexer; and the first multipass Raman probe

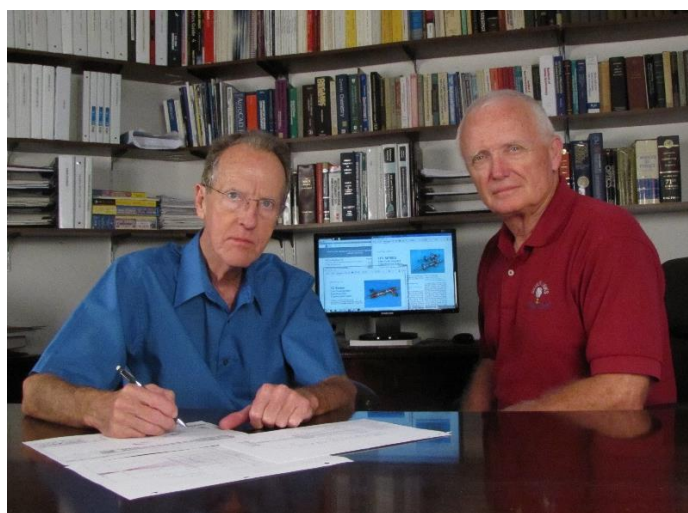
A further result of Axiom's pioneering efforts has been a series of patents (granted and pending) many of which are proving to be basic to the development of process IR. (Please see Table). This large body of proprietary technology enables the company to provide highly

dependable products, fast response, and a high level of applications support and service for its customers.

Axiom Analytical's founders, Dr. Mike Doyle and Norm Jennings, brought to the company a firm understanding of the requirements of both laboratory and process analysis. They were formerly the President and Executive Vice President, respectively, of Laser Precision Corp., a successful manufacturer of fiber-optic, radiometric, and spectroscopic instruments. Dr. Doyle and Mr. Jennings both contributed significantly to Laser Precision's product development activities while, at the same time, managing the company's growth at a compound rate of 40% from \$1 million per year to a profitable \$25+ million per year.

Dr. Doyle is widely regarded as a world leader in infrared design. Among his many achievements in this field was the development of the Transept™ or "Doyle" interferometer, the first commercial interferometer to exhibit the temperature and vibration resistance required by most process applications. He has authored numerous scientific papers and journal articles and has over 50 patents to his credit in fields such as laser instrumentation, optical system design and FTIR spectroscopy. He received his PhD in physics from the University of California at Berkeley.

In 1998, Dr. Doyle was honored at a special session of the Eastern Analytical Symposium as one of ten living "Pioneers of FT-IR Spectroscopy". In 2014, he received the Williams-Wright Award as recognition for his many contributions to the field of vibrational spectroscopy.



Axiom Analytical's founders Dr. Mike Doyle and Norm Jennings

AXIOM'S PRODUCT LINES AND RELATED PATENTS

| | | | | | |
|--|---------------------|---------------------|---------------------|------------------|------------------|
| ATR Immersion Probes: | 4,812,041 | 4,835,389 | 5,051,551 | 5,459,359 | 5,773,825 |
| | 5,991,029 | | | | |
| ATR Flow Cells: | 4,418,615 | 5,054,920 | | | |
| Mid-IR Optical Transfer and Multiplexing Systems: | 5,054,869 | 4,810,093 | 4,784,488 | 4,657,390 | 4,812,041 |
| Fiber-Optic Multiplexers: | 6,009,219 | | | | |
| Linear Flow IR Gas Cells: | 5,065,025 | | | | |
| Near-IR Transmission Probes: | 5,418,615 | 6,587,195 B1 | | | |
| Diffuse Reflectance Probes: | 5,818,996 | 6,563,992 B1 | 6,587,195 B1 | | |
| Polymer Melt Cells and Probes: | 6,587,195 B1 | | | | |
| Sparging-IR Water Analysis Systems: | 5,421,194 | 5,218,856 | 5,566,086 | | |
| Surface Analysis Systems: | 5,015,100 | | | | |
| Web Process Monitoring Systems: | 4,129,781 | 4,207,467 | | | |
| Raman Probes: | 6,587,195 B1 | 6,876,801 B2 | 6,795,177 B2 | | |