John Schindler

Kyle, TX
john@schindlerscientific.com
+1-781-733-9729 (781 SEE XRAY)

Authorized to work in the US for any employer

WORK EXPERIENCE

Owner
Schindler Scientific LLC
December 2021 to present

Consulting in X-ray fluorescence (XRF) and transmission (XRT).

• Simulation of XRF spectra with XMI-MSIM to predict instrument performance and validate software.
  Perform tests and process data to characterize hardware such as X-ray optics
• Optimize X-ray transmission flow cell dimensions.

VP R&D
Austin AI - Austin, TX
January 2002 to September 2021

• Developed XRF (X-Ray Fluorescence) system for analysis of wear metal particles in lubricating oil
• Developed various systems for XRF-based sorting of scrap metal including high-speed data collection from up to 48 detectors
• Worked on LIBS (Laser Induced Breakdown Spectroscopy) based scrap metal sorting, including application development using data mining to determine effective calibrations.
• Programmed microcontroller to interface between a Windows PC and a high voltage power supply and two types of Multichannel Analyzers (MCAs) as well as analog and digital I/O devices.
• Designed printed circuit boards (PCB) mounting DC/DC converters, microprocessors, D/A ICs, and motor controller packages.
• Drew schematics for connecting sorting machines to PCs and PLCs.
• Radiation Safety Officer: Reviewed regulations for various states and the FDA and made sure our products complied.
• Compliance: obtained CE Mark for a sorting system.
• Determined customer requirements for system performance.

Technical Manager
ASOMA INSTRUMENTS – Austin, TX /
Spectro Analytical Instruments - Austin, TX & Marble Falls, TX
January 1981 to December 2001

• Performed application studies on customer samples with standard or modified instruments
• Managed the application lab with 1 to 3 people.
• Developed XRF applications for wood preservatives. Hundreds of instruments were sold.
• Developed XRF application for Cr, Cu, and As at ppm levels in water, including distinguishing Cr +6 from Cr +3
• Worked with JVAR XRF systems, including installation, customer training, and service
• Worked with Spectro XRF systems, including installation, customer training, and service
• Specified motion control components for automated grab sampler for cement plant.
• Worked on design and calibration of Near Infrared (NIR) system for chlorofluorocarbons (CFC) analysis.
• Determined customer requirements for instrument performance.
• Compliance: obtained CE Mark for laboratory and online systems.

Research Scientist
Columbia Scientific Industries - Austin, TX
June 1976 to January 1981

• Made thin-film calibration standards for XRF. This required making standard solutions from pure metals, applying solutions to substrates, and performing quality control checks on the products.
• Performed XRF analysis of air particulate samples.
• Operated Accelerating Rate Calorimeter and repaired it after explosions
• Programmed computer for analysis of Neutron Activation Analysis spectra.

EDUCATION

BS in Chemistry
UT Austin - Austin, TX
September 1970 to May 1976

PATENTS

System for analyzing and sorting material (US #10,478,861)
November 2019: A system for sorting scrap metal, with a specially formed slide to present the sample to a laser beam for Laser Induced Breakdown Spectroscopy (LIBS) analysis.

SKILLS

- Calibration
- Data Mining
- Microcontroller applications
- Product Development and Project Management
- Simulation
- Research & Development
- Engineering
- Calorimetry
- MS Office, MS Project
- Programming in C++, VB6
- Electronics -some design, creating and reading schematics for PCBs and control systems
- Electronics Assembly-soldering & wiring, Troubleshooting, and Repair
- Measuring tools: IR & electronic thermometers, calipers, micrometer
- Hand and power tools (drill & tap, cutting)
- Application Development