

## Curriculum Vitae of David York

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### SUMMARY

Over 27 years' physical semiconductor laboratory analysis experience and intellectual property support. Specialist in competitive reverse engineering of fabrication processes, physical design elements, and circuit component features on a diverse range of products and manufacturers. Responsibilities have included hands-on sample preparation, laboratory equipment operation, laboratory technical and operational management, patent review and claim chart formulation, and prior art research. Uniquely experienced with analysis of semiconductor products and technologies from the late 1970's to modern processes. Historical significance of past work led to its selection by the Smithsonian Institution for inclusion in the National Museum of American History's Chip Collection, documenting the evolution of the integrated circuit - <http://smithsonianchips.si.edu/ice/icesum.htm>. Extensive experience assisting corporate and law firm patent attorneys with offensive, defensive and licensing cases.

### CORE EXPERTISE

Semiconductor physical laboratory analysis, process and circuit reverse engineering, competitive product evaluations, prior art investigations, technical editing/proofreading, and parts research and acquisition.

### PROFESSIONAL EXPERIENCE

**IC MICROANALYSIS LLC**, Phoenix, AZ 2005-present

*Owner and Consultant* - Provide independent expert semiconductor technology competitive research, litigation support, patent analysis, validity research, and specialized consulting services to semiconductor and intellectual property professionals.

**SELF-EMPLOYED CONSULTANT**, Phoenix, AZ 2004-2005

Performed competitive analysis, marketing research, and various technical-consulting services.

**RIGA ANALYTICAL LAB**, Santa Clara, CA 2003-2004

*Laboratory Manager* - Provided project and personnel management of failure analysis lab.

**CHIP WORKS USA (Acquired ICE)**, Scottsdale, AZ 2000-2003

*Manager, Process Analysis* - Independently directed and coordinated activities for laboratory analysis group performing hands-on competitive and patent infringement analysis of state-of-the art semiconductor and related products.

**ICE CORPORATION**, Scottsdale, AZ 1979-2000

*VP - Intellectual Property Analysis Services* - Created and directed Intellectual Property (IP) Analysis group including operations, personnel management, marketing and sales, strategic planning and positioning, and technical management. Supported attorneys investigating infringement and prior art is sued by identifying and documenting claimed elements on competitors' products.

*VP - Lab Analysis Services, Laboratory Manager* - Developed strategic growth and direction of 11-person laboratory analysis department responsible for competitive intelligence, reverse engineering, physical product analysis, internal publications development, and technical training support. FA Seminar Instructor.

*Analysis Engineer, Laboratory Analyst* - Performed hands-on physical laboratory analysis on semiconductor and related products.

## PROFESSIONAL AFFILIATIONS

Member, Institute of Electrical and Electronic Engineers (IEEE).

## DEPOSITION EXPERIENCE

*Testified as a technical expert in support of laboratory results.*

- § *Atari* vs. Nintendo, 1992 - Re: 10NES ROM source code, Client: Shroeder, Davis and Orlliss, and Heller, Ehrman, White and McCauliffe.
- § Neomagic vs. *Trident*, 1999 - Re: Circuit substrate power biasing – US Patent 5,703,806, Client: Gray, Cary, Ware and Freidenrich.
- § *Ericsson* vs. Harris, 2000 - Re: Fabrication process-telephone power circuit. US Patent 4,961,222, Client: Nixon and Vanderhye.

## PUBLICATIONS AND INTERVIEW QUOTATIONS

- § *Successful Technologies Review, 2001* – Summary and comparison of new IC process technologies. Published in 2001 by Chipworks, USA.
- § *Interlevel Dielectric (ILD) and Metallization Technologies Focused Technology Review*. Published in 2001 by Chipworks, USA.
- § Authored thousands of product analysis and reverse engineering reports on various products for clients at ICE Corporation. Published 1979 – 2000.
- § Fabtech - 10/5/2001; Electronic News - 10/4/2001: *Re: Intel PII Copper Microprocessor Report*

## EDUCATION

Associates of Applied Science, Electronics Engineering - Stark State College  
Design of Experiments, IC Fabrication, Status - ICE Corporation  
Patent Review and Classification - Chipworks, USA  
Various industry technical seminars and conferences - SEMICON, IRPS, IEDM

## TECHNICAL PROFICIENCIES

**EQUIPMENT:** Buehler Ecomet III polishers/grinders and Isomet low speed saw, HP Faxitron x-ray, Nippon Scientific Instruments PA 103 decapsulation system, Reichert/Polyvar photomicroscopes, JVC TK-F7300V Digital CCD Camera, Olympus BX60M optical with digital camera, Nikon, American Optical and Bausch & Lomb metallurgical microscopes, Trion “Phantom” RIE, March and Tegal Plasmod barrel plasma etchers, selective chemical or plasma etching/staining as needed to highlight desired features, Polaron SC500 sputterer, Philips 505 and 515 SEMs (LaB6 source) with Semicaps image acquisition, FEI XL30 SFEG FESEM, PGT Princeton Gamma-Tech Prism Digital Spectrometer.

**SOFTWARE:** Microsoft Word, MS Excel, MS PowerPoint, Filemaker (database), ThumbsPlus (digital image archive), Adobe Photoshop, MS Internet Explorer, Capilano Computing Design Works (schematic generation), Outlook, Namo WebEditor (website design), Video Factory/Vegas Video (video editing).

## PRODUCT ANALYSIS EXPERIENCE

**PRODUCTS:** Memories (DRAM, SRAM, Flash, EPROM, ROM), microprocessors, digital signal processors, microcontrollers, microperipherals, optoelectronics, single and multi-chip packages, PC boards, smart cards, cellular phones, ink jet cartridges, memory cards, and automotive control modules.

**PROCESSES/TECHNOLOGIES:** Bipolar, NMOS, CMOS, BiCMOS, aluminum/copper interconnect.