

Computer Aided Learning Software & Courseware = 16;
17; Site Or Regional Resource Databases = 16; Regional
Resource Databases = 16; Computerized Communications
Command & Control System Definition = 16; Warning
System Definition & Design = 16.

Revised: Dec 83

PHOTOCHEMICAL RESEARCH ASSOCIATES Inc

Code: PRA

Address: 45 Meg Drive
London, Ontario, Canada N6E 2V2

Contact: Dr R C Miller, Director of Marketing -
(519) 686-2950

History: Photochemical Research was incorporated in
mid-1976. It is a Canadian owned high technology company
with a US sales office located in Oak Ridge, Tennessee.

Capability: PRA is involved in the design, development and
manufacture of electro-optical instrumentation systems;
specifically in light generation, detection and analysis. Their
present product lines consist of luminescence decay systems
for the reliable measurement of short lived fluorescence life
times; pulsed light sources with pulse widths from pico-
seconds to seconds and spectral ranges from the VUV to the
IR; CW light sources and a line of optical building blocks;
Photon Counting Systems for low light level detection; a line
of long-life Helium/Neon lasers; low power Argon ion lasers;
and Nitrogen and Dye lasers. PRA is currently developing third
generation spectroscopic analysis instrumentation. The latter
is nearing market readiness.

In addition to manufacturing standard products, they operate
research and laboratory facilities for custom manufacturing,
contract research, and consulting. PRA operates on an inter-
national basis through offices in Canada and the US, as well
as through distributor networks in Europe and the Far East.

Average Work Force: Scientists/Engineers - 25
Others - 55

Gross Sales: No Data

Plant Size: 22,500 sq ft

Experience: PRA has sold their off-the-shelf products to a
variety of academic, industrial, and government research
facilities including - Lawrence Livermore Laboratories, Oak
Ridge National Laboratories, Los Alamos Scientific Labora-
tories, Solar Energy Research Institute, Exxon Research, Bell
laboratories, Western Electric, Eastman Kodak, and Wright-
Patterson AFB, OH.

Keywords: 7 = Electronics; 10 = Image Processing &
Optics; 11 = Lasers; 19 = Testing/Test Equipment;
20 = Miscellaneous; Electro-Optical Instrumentation = 7,
10, 19; Light Generation = 7; Light Detection = 7; Light
Analysis = 7; Luminescence Decay Systems = 7; Pulsed
Light Sources = 7; Continuous Wave Light Sources = 7;
Optical Building Blocks = 7, 10; Photon Counting
Systems = 7; Helium Neon Lasers = 11; Contract
Research = 7, 10, 11; Spectroscopic Analysis
Instrumentation = 7, 19, 20; Low Power Argon Ion
Lasers = 11; Nitrogen Lasers = 11; Dye Lasers = 11.

Revised: Dec 83

PHOTOVAC Inc

Code: PHV

Address: 134 Doncaster Ave
Unit 2
Thornhill, Ontario, Canada L3T 1L3

Contact: Dr Richard C Leveson, President - (416) 881-8225

History: Incorporated in 1975; Canadian owned. Their US
subsidiary, Photovac International Inc, is located in Long
Island, NY.

Capability: Photovac's distinctive competence is in the ability
to: (a) design and manufacture instrumentation for the detec-
tion and analysis of gaseous and vaporous contaminants in
air, and in other gases, at extremely low concentration levels
(parts per billion); and (b) to apply this instrumentation,
together with technical knowledge, to specific R&D projects.
This competence is broadly based in research, product
development, systems engineering, and computer design
(from scratch); and software development capabilities as
these relate separately or in combination to photoionization
gas chromatography technology. Photovac's particular tech-
nology strength is based on a newly-developed, ultra-sensitive
photoionization system which overcomes problems previously
experienced with this technique.

Average Work Force: Phds - 2
Engineers - 4
Research Scientists - 7
Technicians - 8

Gross Sales: 1980 - \$250,000
1981 - \$400,000
1982 - \$1.0M
1983 - \$2.0M (Projected)

Plant Size: 7,000 sq ft (Plus 1,000 sq ft in Long Island, NY)

Equipment: Photovac Inc's equipment capability is described
below:

- Instrumentation for air and gas analysis of contami-
nants with sub part-per-billion detection capability.
- Available in field portable format including compu-
ter interpretation.
- Available for system installation to carry out multi-
point, continuous, high-speed surveillance of air
quality.
- Specialty equipment for investigating short wave-
length, ultra-violet phenomena, specially related to
gas analysis applications - vacuum UV monochro-
meter system and mass spectrometer.
- Machine shop capability.

Experience: Photovac Inc has had experience with:

- Development of ultra-sensitive (sub ppb) detector for
military applications (AGARD Proceedings #309
"Toxic Hazards in Aviation", B15-1, Sep 80).
- General Electric - continuous surveillance of arsine
and phosphine in new Research Triangle Park facility.
- Research on preconcentration for ion mobility spec-
trometer relating to detection of explosive vapors in
air at trace levels (Canadian Department of National
Defense).
- Anticipated contract (sole source) from NASA for
development of specialized breath analysis system
for future Space Shuttle flight.
- Miscellaneous semi-formal projects and special
assignments for EPA (US), Cal OSHA, USDA, US Gas
Research Institute.