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# Daniel G. Stearns, Ph. D.

## Objective

Provide consulting services in optical science, photonics, thin film technology and specializing in computational modeling and analysis of complex physical systems.

## Experience

1996 - present

### Independent Consultant

- *Optical Science*  
Light scattering at surfaces and in heterogeneous media.  
Effects of flare in lithography: CD control and field uniformity.  
EUV lithography applications.
- *Material Science*  
Thin film deposition, structure and properties.  
Nucleation and growth of defects in thin film and multilayer structures.  
Magnetic multilayer structures and devices.
- *Life Science*  
Photon transport in tissue: diffuse optical tomography  
Optical and CT imaging systems for preclinical applications.  
Microfluidic-based platforms for biological and genetic analysis.  
Novel digital PCR applications.
- *Computer Science*  
Monte Carlo and FEM simulation tools.  
Custom software development in C++, .NET, Matlab, IDL.

1984–1996      Lawrence Livermore National Laboratory      Livermore, CA

### Senior Scientist

Research and development in the areas of optical coatings, lithography, magnetic recording, x-ray lasers, short pulse lasers and inertial confinement fusion.

## Education

1978 - 1984      Stanford University      Stanford, CA  
Ph. D, Applied Physics

1974 - 1978      University of Michigan      Ann Arbor, MI  
B.A., Physics

## Accomplishments

- Over 100 technical publications.
- Inventor on over 20 issued U. S. patents
- Received four R&D 100 awards.