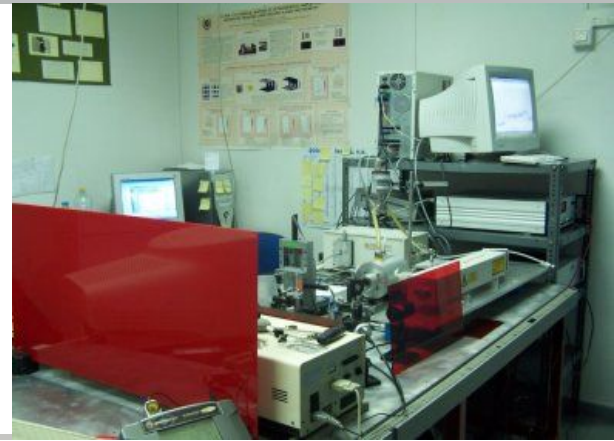


## LASER PROCESSING AND ANALYSIS OF MATERIALS



### INTRODUCTION

The Laser Laboratory, Department of Analytical Chemistry, University of Málaga, is a research group established in 1987. The Group is specialized in laser processing and analysis of materials and offers quick-turnaround, cost-effective solutions to a variety of research and technical problems in diverse applications areas, including microelectronics, process monitoring technologies, environment, cultural heritage, and steel products and processes. The Laser Laboratory also designs and builds complete spectroanalytical systems to custom specifications, including compositional mapping systems, remote analysis instruments and portable/field deployable prototypes.

### RESEARCH TOPICS

- New sources for Glow Discharge for Laser-induced Plasma Spectrometry.
- Fabrication of thin ZnO films by Pulsed Laser Deposition and characterization by several experimental methods.
- Remote detection of aerosols by Laser-induced Plasma Spectrometry (LIPS).
- Time-of-Flight Mass Spectrometry with Laser Ionization applied to the analysis of surfaces and interfaces.
- Surface analysis by Secondary Ions Mass Spectrometry.

### SCIENTIFIC-TECHNICAL SERVICES

- Thin films analysis by Laser-induced Plasma Spectrometry.
- Design and construction of portable instruments to be applied on the characterization of steel industry products.
- Analysis of surfaces and interfaces of materials of industrial interest and cultural heritage goodies.
- Cultural Heritage investigation using Portable Laser Analyzers.

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