



# **Micromachining Using Electrochemical Discharge Phenomenon, Second Edition: Fundamentals and Application of Spark Assisted Chemical Engraving (Micro and Nano Technologies)**

*Rolf Wuthrich, Jana D. Abou Ziki*

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Micro-machining is an advanced manufacturing technique of growing importance, and adoption of micro-machining using electrochemical discharges (Micro-ECDM) has increased steadily in recent years. Among new developments is the interest of industry in Micro-ECDM. However, the potential of the technology is not being fully utilized and there is no comprehensive reference book available today covering it.

Micromachining Using Electrochemical Discharge Phenomenon, Second Edition fills this gap. It is unique in its detailed coverage of all aspects of the Micro-ECDM process, as well as Spark Assisted Chemical Engraving (SACE). As such, it covers technologies such as chemical etching, micro-drilling, and other material removal mechanisms, high aspect ratio machining, design and construction of the machining apparatus, and a wide range of applications. The new edition compares Micro-ECDM and SACE with other micromachining technologies such as laser machining and traditional EDM. ECDM is used for machining of electrically non-conductive materials. Micro-ECDM/SACE is mainly applied to glass and the book focuses on glass, but the authors also present new results on other materials such as ceramics. In addition, techniques to modify material properties for the machining process are explained. The authors discuss machining strategies including the latest developments in micro-texturing of glass micro-channels and reports on developments in controlling and analysis aspects of machining. This book is a unique reference for engineers and industrial researchers involved in development, design and use of micromachining, chemical micro-drilling or chemical engraving techniques and equipment.

- Only all-encompassing reference covering Micro-ECDM and SACE available on the market
- Covers a wide range of applications, including applications in the MEMS industry and the Medical Devices and Medical Diagnostics industries
- New edition includes expanded sections on comparing Micro-ECDM/SACE with other micromachining technologies

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A lot of people always spent their own free time to vacation as well as go to the outside with them family members or their friend. Do you know? Many a lot of people spent that they free time just watching TV, or maybe playing video games all day long. If you wish to try to find a new activity here is look different you can read a book. It is really fun in your case. If you enjoy the book which you read you can spent all day every day to reading a e-book. The book Micromachining Using Electrochemical Discharge Phenomenon, Second Edition: Fundamentals and Application of Spark Assisted Chemical Engraving (Micro and Nano Technologies) it is rather good to read. There are a lot of those who recommended this book. These were enjoying reading this book. In the event you did not have enough space bringing this book you can buy the particular e-book. You can m0ore effortlessly to read this book from a smart phone. The price is not to fund but this book offers high quality.

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