



Workshop

EDM

February 28, 2001, Bern

Swiss companies are world market leaders in the field of electrical erosion machines (**E**lectrical **D**ischarge **M**achining). The processing precision that can be achieved nowadays is around 2 - 3 μm , and surface roughness levels are $< 50 \text{ nm}$. The market is already demanding processes that can go beyond these limits.

In order to advance EDM technology even further into the nanometer range, a fundamental understanding of the processes on the nanometer scale and of their effect on the microscopic and macroscopic scales is necessary.

A group of researchers from industry and universities has discussed these points at a seminar and identified three specific topics which need to be investigated more deeply in order to understand the processes:

1. Spark discharge / plasma
(Prof. C. Hollenstein, EPFL)
2. Metallurgy
(Prof. R. Flükiger, University of Geneva)
3. Corrosion
(Prof. H. Siegenthaler, University of Berne)

Fundamentally oriented TOP NANO 21 projects are presently being prepared on these three topics.