

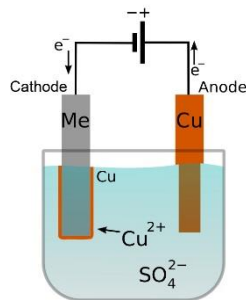
Seminar

Basic Course in Electroplating General Basics of Electroplating with Practical Training

Module 1

2017

20 - 22 September



Registration and information

Zentrum für Oberflächentechnik
Schwaebisch Gmuend e.V.
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DETAILS

Surface technology accompanies all of us in everyday life. We are often just not aware of this fact. Especially in the metal field it is electroplating which enhances the appearance and durability of everyday articles.

To work successfully, electroplating with its complex processes such as pre-treatment, selection of suitable process steps and electrolytes, post-treatment steps, electrolyte maintenance, wastewater treatment and analyses should be seen as a whole. The basic course will teach the basics of electroplating. Theory will be put into practice in small groups. Every participant can treat and plate his or her own workpiece.

Target Group

- Semi-skilled workers
- Re- and lateral entrants
- Other occupational groups such as businessmen, developers, engineers
- Everybody who would like to gain an insight into electroplating

Learning Goals

- Introduction to and basics of electroplating and electrochemistry
- Quality management
- Electrolyte monitoring
- Environmental and wastewater technologies
- Safety management
- Putting theory into practice in laboratory and plating shop

The Z.O.G.

The Centre for Surface Technology Schwaebisch Gmuend reg. Soc. (Z.O.G.) was founded in December 1986. It is a network of many institutions.

The tasks of Z.O.G.

- Education
- Further vocational education and training
- Specialist events
- Initiating and co-ordinating research
- Finding trainee places
- Technology transfer
- Promoting plating and surface technology
- Job placements

The Z.O.G. offers you

- A generous laboratory workplace for every seminar participant with professional laboratory equipment and modern instruments
- All standard analytical methods
- Competent lecturers with practical experience as well as staff from specialist companies and teachers from electroplating schools
- Good learning opportunities since number of participants is limited
- Practical work and experiments in small groups of max. 7 people
- Comprehensive and detailed seminar materials for later repetition of the subject
- Specific problem solutions for every participant

PROGRAMME

Day 1

Welcome and presentation of Z.O.G.

Introduction and division into groups

Safety instructions

Basics of electroplating with practical training in the workshop

Practice: Conventional and special electroplating processes

Theory: Cu electrolytes, pre-treatment, plating of different base materials

Discussion

Day 2

Theoretical basics:

Precious metals, pre-treatment, (degreasing, ultrasonic cleaning, acid dip)

Plating (PM: gold, silver, ...), electroforming

Electroplating: Introduction, principle, processes and techniques

Base metal electrolytes and layers

Practical experiments with nickel electrolytes

Hull cell test

Analysis of nickel electrolytes

Basics, titration, calculations

Discussion

Day 3

Base metal electrolytes - Theory

Different base metal electrolytes, layer sequences, plating processes, compositions

Test evaluation: Practical experiments with nickel electrolytes

Assessment, troubleshooting

Discussion

Analytical results

Assessment, calculation, explanations

Final discussion

Issue of certificates

Place in Aalen

Hochschule Aalen - Technik und Wirtschaft
Aalen University of Applied Sciences
Beethovenstraße 1
73430 Aalen

DURATION AND FEES

Duration

3 days

Fee

EUR 1.180.--

You will get a detailed schedule and information on accommodation together with your confirmation of registration.

Subject to alteration

