Galvanizing

Notes from Jakob (may need refinement)

- copper sulphate
- solution a (copper sulphate)
- solution b
- solution c: caustic soda and formaldehyde

heating plate

- medium to be electroplated
- monodistilled (once distilled) water
- fill with water
- heating plate underneath (with magnetic stirrer)
- put thermometer (sensor) on top
- heat to 50 degrees
- add ingredients according to recipe in order.
- todo: translate recipe

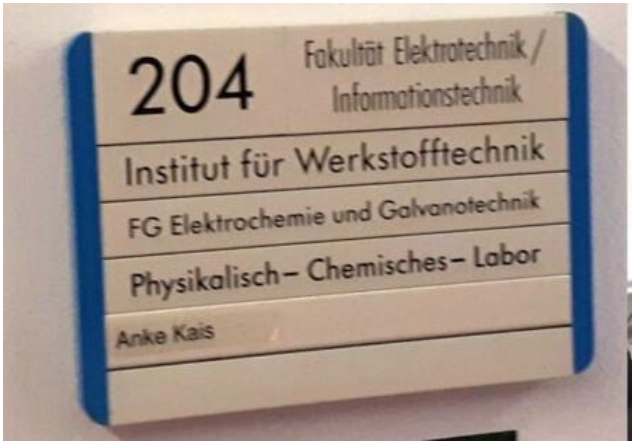
pre-treatment of plate

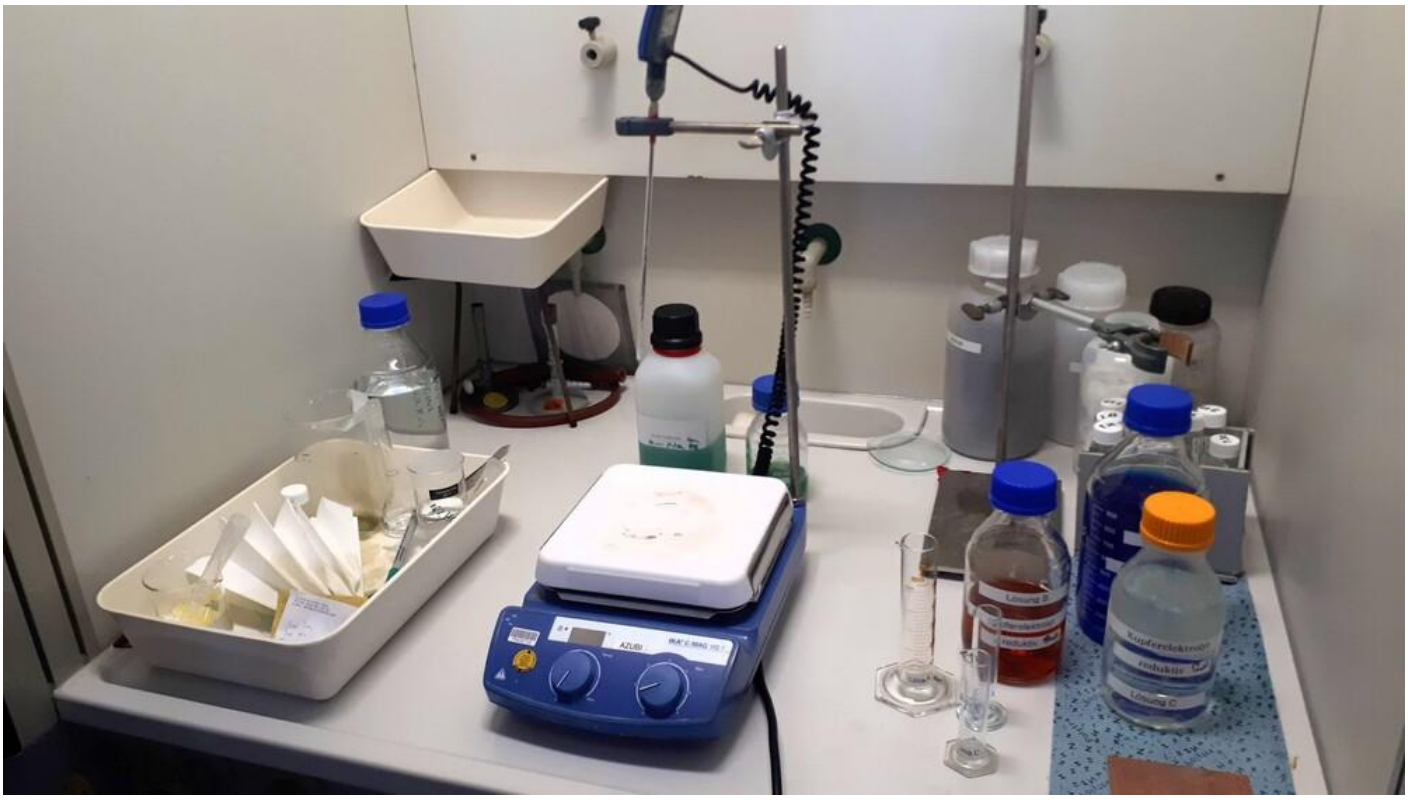
- hso degreaser
- caustic soda and disodium tasylate plus something like fit
  - degrease
- this forms very small oxide layers. we want to rinse these off
- rinse (with water)
- put the piece in solution
- how thick should the layer be?
- 3 to 8 µm per hour
- the bath is set to slow. why? because the bath is there to do selective coating. that means you want to coat one part and not others.
- 3d printed circuit boards can also be made with it. can be injection molded and then coated in electroplating
- 3d plastic: copper particles in plastic. expose with a laser and electroplate.
  - 3d mid

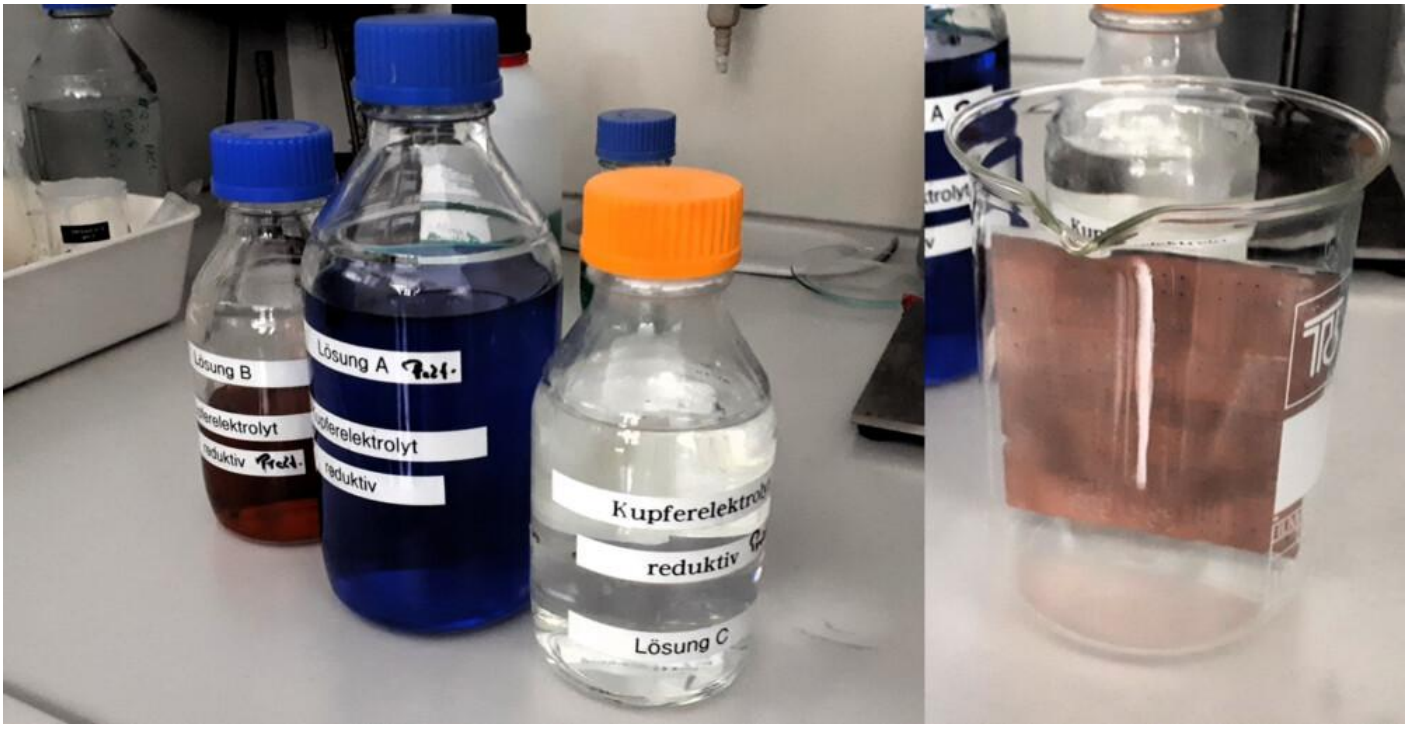
- process only works because there is a bit of copper on the surface. the copper acts as a catalyst.

if i now want to electroplate a sheet, i have to dip it in a solution beforehand so that a metal layer is deposited on it.

- the following would be possible:
  - palladium, silver etc. the only question is how to get it onto the surface
- we use palladium because it's a very good catalyst. it's a very good catalyst because it can be plated with





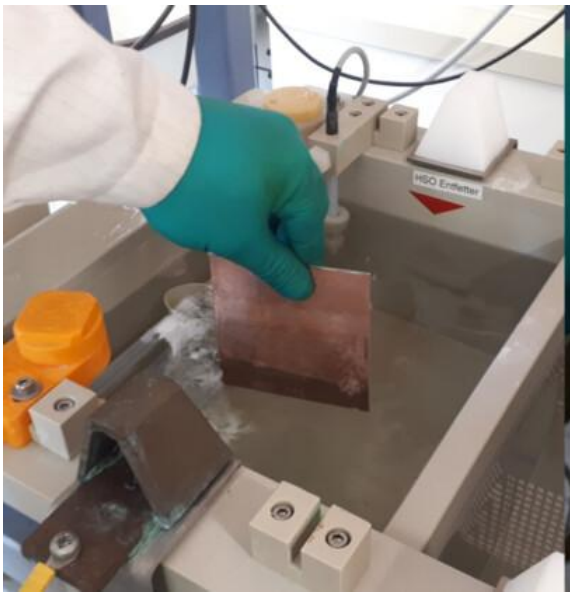

Lösung B
Lösung A
reduktiv
reduktiv
Lösung C

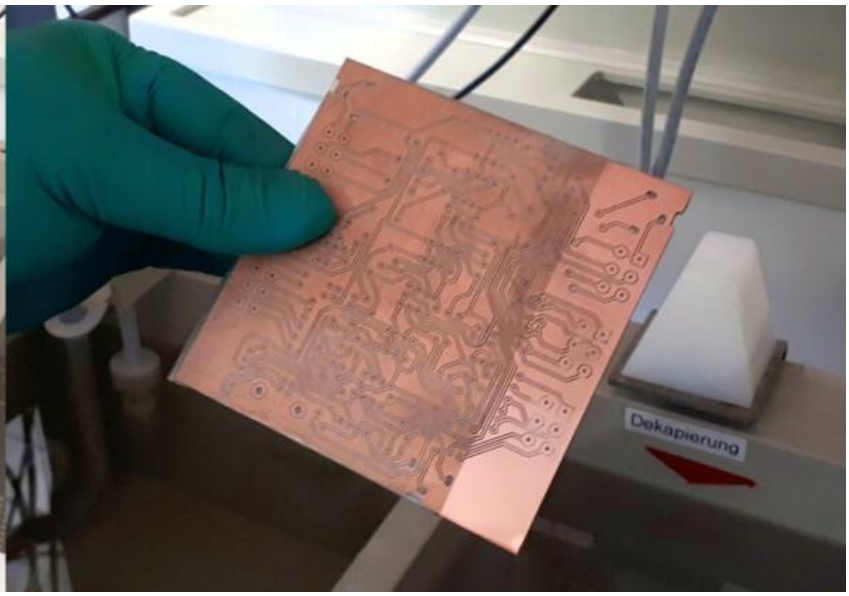
Kupferelektrolyt für Chem Mat:

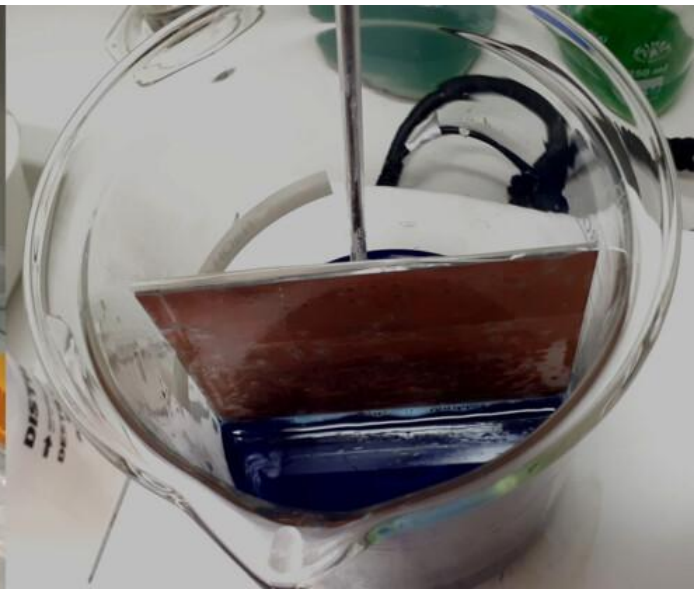
- 100 ml dest. H_2O
- + Lösg. B 16,25 ml
- + Lösg. A 20 ml
- + Lösg. G 6 ml

=) mit Rührer mischen

- auf 250 ml mit dest. H_2O auffüllen







[ECG10_ChemMet_20141022.pdf]

[Presol 1-3_TDS.pdf]

[ENPLATE CU 872.pdf]

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