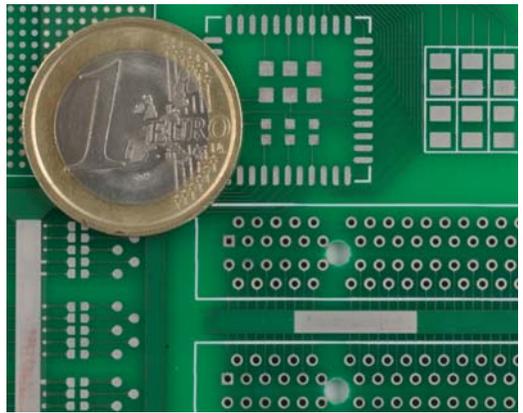


# Ionic Liquids



**ScioniX**  
Ionic Liquid Technology



## The Benefits of Our Liquids

Our materials are mixtures of a quaternary ammonium salt and a suitable hydrogen bond donor. Most of our solvents are based on choline chloride (vitamin B4) as it is non-hazardous and produced on Mtonne scale.

The benefits of our liquids are:

- No registration is required and the safety data are known
- Negligible vapour pressure
- Non-flammable
- Unusual solvent properties
- Tuneable to your process by different formulations of choline chloride and with metal salts or hydrogen bond donors



**Scionix can perform small-scale process testing**, provide technical back-up for on-site trials and can also supply any training or equipment required.

# Applications

## Immersion Coatings

An immersion Ag process has been developed giving a high quality solderable Ag finish for PCB applications. This is now a viable alternative to conventional acid-based autocatalytic electroless coatings. Immersion coatings of Cu on Al and alloys are also now made possible using the same liquid / process technology.

## Metal Oxide Processing

These ionic liquids dissolve a wide range of metal oxides and can be used to selectively extract metals from complex matrices. We have a pilot plant in operation to extract a range of metals from waste substrates.

## Electropolishing

The benefits of the new electropolishing technology are a higher current efficiency when compared with the traditional process, excellent surface finish, drop-in replacement for current acid-based solutions and the liquid is non-corrosive.

## Electroplating

A viable alternative to Cr(VI) has been developed. It offers high current efficiency using either soluble chrome anodes or DSA's. Hard, black or decorative (bright) chrome coatings are possible.

Processes have been developed for the deposition of Cr, Al, Co, Ni, Cu, Zn, Sn, Pb, Pd, and Ag. Alloys such as Cu/Zn, Zn/Co and Zn/Sn have also been deposited on a wide range of substrates without special pre-treatment. Stable colloidal suspensions can be made and incorporated into metallic coatings to produce hard composites.



Scionix aims to embrace Sustainable Development to provide economic, environmental and social benefits from its new technology. All the opportunities we are currently involved in add benefits associated with eco-efficiency and social business ethics.

We produce ionic liquids for a large number of ongoing collaborations, partners include consumer product manufacturers, automotive and aerospace materials finishers, mining conglomerates and pharmaceutical companies. We are already one of the worlds largest, per volume, manufacturers and distributors of these types of liquids.



# Scionix

[www.scionix.co.uk](http://www.scionix.co.uk)

Dr. Khalid Shukri

**Scionix Ltd**

298 Regents Park Road, Finchley, London, N3 2UA, UK

**tel:** +44 (0) 20 8371 3905

**fax:** +44 (0) 20 8371 3958

**e-mail:** [khalid@genacys.co.uk](mailto:khalid@genacys.co.uk)

**web:** [www.scionix.co.uk](http://www.scionix.co.uk)