Tools and inks for the atmospheric inkjet printing of Ag metallization for Si solar cells have been developed. Line widths, conductivities and thicknesses comparable to, or better than, those produced by screen printing. A new fire-through ink and layered printing were found to decrease the processing temperature for contact formation to as low as 650°C and improve printed cell performance.

Future work: Improve resolution of printed lines, optimize fire-through layer thickness, processing time and temperature for best contacts.