

Enlightened Engineering

Sterling silver microwave guide earrings, plique-à-jour enamel.

4cm x .5cm each

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En-lightened Engineering
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Inspiration:

Professor Anke Rita Kayasser-Pyzalla

Anke Rita Kayasser-Pyzalla has a distinguished career in physics with a strong focus on engineering and materials investigation. This inspired a pair of earrings made with the *plique-à-jour* enamelling technique.

Materials:

Silver microwave guides (donated by Norman Heckenberg), powdered enamels, eutectic solder, sterling silver wire.

Method:

The silver waveguides - rectangular shaped tube - were hand-sawn into 1.5mm lengths and then soldered together with a high-temperature, eutectic solder. To prepare the pieces for enamelling, the fine silver had to be brought to the surface. This was done by several cycles of depletion gilding - heating to annealing temperature, pickling and heating again. The silver cloisons, or cells, were then filled with different coloured transparent enamels and fired. The enamels were ground back and high-polished with heat from a kiln. As is common with using recycled materials, the final work is the result of much experimentation and testing, to see how the metals react under different conditions, and in combination with others.

Results:

Using processes of materials investigation, and also imbuing re-purposed lab material with an engineered, wearable and aesthetic manner, a pair of plique-à-jour silver earrings - a delicate, ephemeral construction - have been created.

The box is made of salvaged Australian native timbers - a Silver Ash lid (*Flindersia bourjotiana*) and Red Gum (*Eucalyptus pelitta*) body. Made for Labpunk and the AIP Congress 2014 by Gary Field.