CLAIMS:

1. An inkjet printhead for ejecting drops of liquid on to a media substrate, the inkjet printhead comprising:

a chamber for holding liquid;

a nozzle in fluid communication with the chamber;

a heater positioned in the chamber for thermal contact with the liquid such that resistive heating of the heater generates a vapour bubble that ejects a drop of the liquid through the nozzle; wherein,

the heater is formed from a TiAlX alloy where Ti contributes more than 40% by weight, Al contributes more than 40% by weight and X contributes less than 5% by weight and comprises zero or more of Ag, Cr, Mo, Nb, Si, and Ta ~~and W~~, wherein the heater has a microstructure with a grain size less than 100 nanometres, and wherein X comprises W.

~~2. An inkjet printhead according to claim 1 wherein X is W.~~

~~3.~~2. An inkjet printhead according to claim 1 wherein ~~X includes~~ the W ~~which~~ contributes between 1.7% and 4.5% by weight.

~~4. An inkjet printhead according to any one of the preceding claims wherein Ti contributes more than 48% by weight, Al contributes more than 48% by weight and X is 0% by weight.~~

~~5.~~3. An inkjet printhead according to any one of the preceding claims wherein the TiAl component of the heater ~~(10)~~ has a gamma phase structure.

~~6.~~4. An inkjet printhead according to any one of the preceding claims wherein during use, the TiAlX alloy forms an Al_2O_3 surface oxide which directly contacts the liquid.

~~7.~~5. An inkjet printhead according to any one of the preceding claims wherein the TiAlX alloy is deposited as a layer less than 2 microns thick.

~~8.~~6. An inkjet printhead according to claim ~~7~~ 5 wherein the layer is less than 0.5 microns thick.

~~9.~~7. An inkjet printhead according to any one of the preceding claims wherein the heater further comprises a protective coating, the protective coating having a total thickness less than 0.5 microns.

~~10.~~8. An inkjet printhead according to claim ~~9~~ 7 wherein the protective coating is a single layer of material.

~~11.~~9. An inkjet printhead according to claim ~~9~~ 7 or claim ~~10~~ 8 wherein the protective coating is at least partially formed from a silicon oxide, nitride or carbide.