CLAIMS

1. A secondary alloyed 1N copper wire for bonding in microelectronics comprising ~~one or more of a group~~at least one of ~~Ag, Ni,~~ Pd, Au, and Pt~~, and Cr~~ as corrosion resistance alloying material, wherein a concentration of said corrosion resistance alloying material is between ~~about~~ 0.99wt% and ~~about~~ 9.9wt%.

~~2. The secondary alloyed 1N copper wire as claimed in claim 1, wherein the corrosion resistance alloying material comprises about 0.99wt% to about 9.9wt% of Ag.~~

~~3. The secondary alloyed 1N copper wire as claimed in claim 1, wherein the corrosion resistance alloying material comprises about 0.99wt% to about 9.9wt% of Ni.~~

4~~2~~. The secondary alloyed 1N copper wire as claimed in claim 1, wherein the corrosion resistance alloying material comprises ~~about~~ 1.18wt% to ~~about~~ 9.9wt% of Pd.

5~~3~~. The secondary alloyed 1N copper wire as claimed in claim 1, wherein the corrosion resistance alloying material comprises ~~about~~ 0.99wt% to ~~about~~ 9.9wt% of Au.

6~~4~~. The secondary alloyed 1N copper wire as claimed in claim 1, wherein the corrosion resistance alloying material comprises ~~about~~ 0.99wt% to ~~about~~ 9.9wt% of Pt.

~~7. The secondary alloyed 1N copper wire as claimed in claim 1, wherein the corrosion resistance alloying material comprises about 0.99wt% to about 9.9wt% of Cr.~~

~~8. The secondary alloyed 1N copper wire as claimed in claim 1, wherein the corrosion resistance alloying material comprises about 0.005wt% to about 0.1wt% of Ag and about 0.09wt% to about 9.8wt% of Ni.~~

9~~5~~. The secondary alloyed 1N copper wire as claimed in claim 1, wherein the corrosion resistance alloying material comprises ~~about~~ 0.005wt% to ~~about~~ 0.1wt% of Ag and ~~about~~ 0.09wt% to ~~about~~ 9.8wt% of Pd.

~~106~~. The secondary alloyed 1N copper wire as claimed in claim 1, wherein the corrosion resistance alloying material comprises ~~about~~ 0.005wt% to ~~about~~ 0.1wt% of Ag and ~~about~~ 0.09wt% to ~~about~~ 9.8wt% of Au.

~~117~~. The secondary alloyed 1N copper wire as claimed in claim 1, wherein the corrosion resistance alloying material comprises ~~about~~ 0.005wt% to ~~about~~ 0.1wt% of Ag and ~~about~~ 0.09wt% to ~~about~~ 9.8wt% of Pt.

~~12. The secondary alloyed 1N copper wire as claimed in claim 1, wherein the corrosion resistance alloying material comprises about 0.005wt% to about 0.1wt% of Ag and about 0.09wt% to about 9.8wt% of Cr.~~

~~138~~. The secondary alloyed 1N copper wire as claimed in any one of claims ~~85~~ to ~~127~~, ~~wherein the corrosion resistance alloying material~~ further comprising~~comprises about~~ 0.008wt% of P.

~~149~~. The secondary alloyed 1N copper wire as claimed in claim ~~8 or 95~~, ~~wherein the corrosion resistance alloying material~~ further comprising~~comprises about~~ 0.005wt% to 0.013wt% of a deoxidizer alloying material.

~~1510~~. The secondary alloyed 1N copper wire as claimed in claim ~~149~~, wherein the deoxidizer alloying material comprises ~~about~~ 0.005wt% of Ca, Ce, Mg, La and Al.

~~1611~~. The secondary alloyed 1N copper wire as claimed in claim ~~1510~~, wherein the deoxidizer alloying material further comprises ~~about~~ 0.008wt% of P.

~~1712~~. The secondary alloyed 1N copper wire as claimed in claim 1, wherein the corrosion resistance alloying material comprises ~~about~~ 0.005wt% to ~~about~~ 0.1wt% of Ag~~,~~ and ~~about~~ 0.09wt% to ~~about~~ 9.~~86~~wt% of ~~Ni~~Pd, and wherein the secondary alloyed 1N copper wire further comprises ~~about~~ 0.005wt% of Ca, Ce, Mg, La and Al, and ~~about~~ 0.008wt% of P.

~~18~~13. The secondary alloyed 1N copper wire as claimed in claim 1, wherein the corrosion resistance alloying material comprises ~~about~~ 0.005wt% to ~~about~~ 0.1wt% of Ag~~,~~ and ~~about~~ 0.09wt% to ~~about~~ 9.6wt% of Pd, and wherein the secondary alloyed 1N copper wire further comprises ~~about~~ 0.005wt% of Ca, Ce, Mg, La and Al, and ~~about~~ 0.008wt% of P.

~~19~~14. The secondary alloyed 1N copper wire as claimed in claim ~~17 or claim~~ ~~18~~12 or 13, ~~wherein the corrosion resistance alloying material~~ further comprising~~comprises~~ ~~about~~ 0.02wt% to 0.29wt% of a grain refiner alloying material.

~~20~~15. The secondary alloyed 1N copper wire as claimed in claim ~~19~~14, wherein the grain refiner alloying material comprises ~~about~~ 0.005wt% to ~~about~~ 0.2wt% of Fe, ~~about~~ 0.005wt% to ~~about~~ 0.05wt% of B, ~~about~~ 0.005wt% to ~~about~~ 0.02wt% of Zr, and ~~about~~ 0.005wt% to ~~about~~ 0.02wt% of Ti.

~~21~~16. The secondary alloyed 1N copper wire as claimed in any one of the preceding claims, further comprising ~~about~~ 0.0003wt% of S.