Supplementary Information

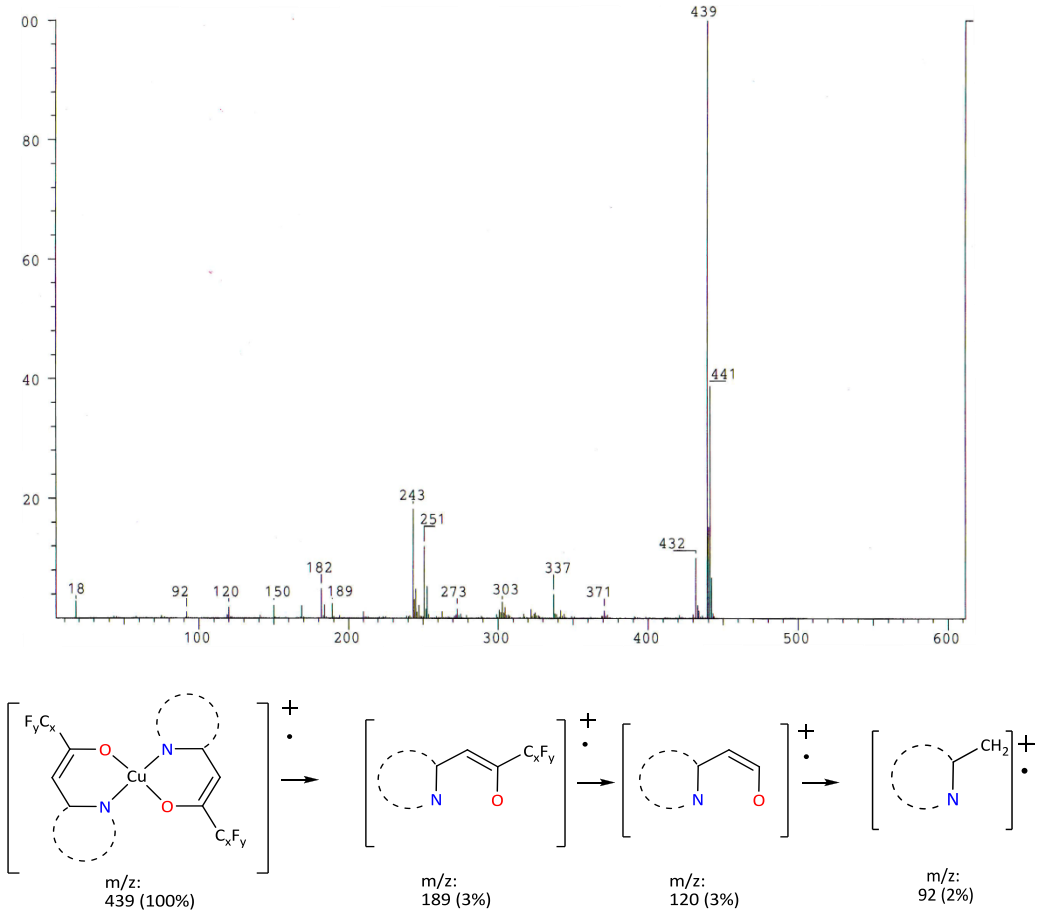


Figure A: MS data (top) and important fragmentation pattern of compound (**1**) (bottom).

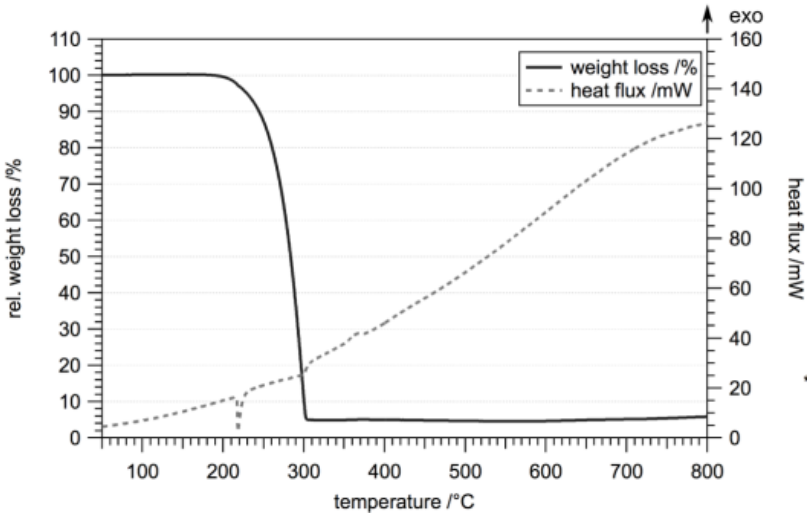


Figure B: TG and DSC profiles of (**1**).

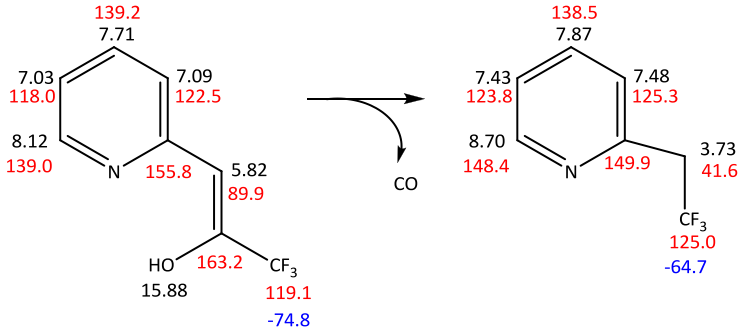
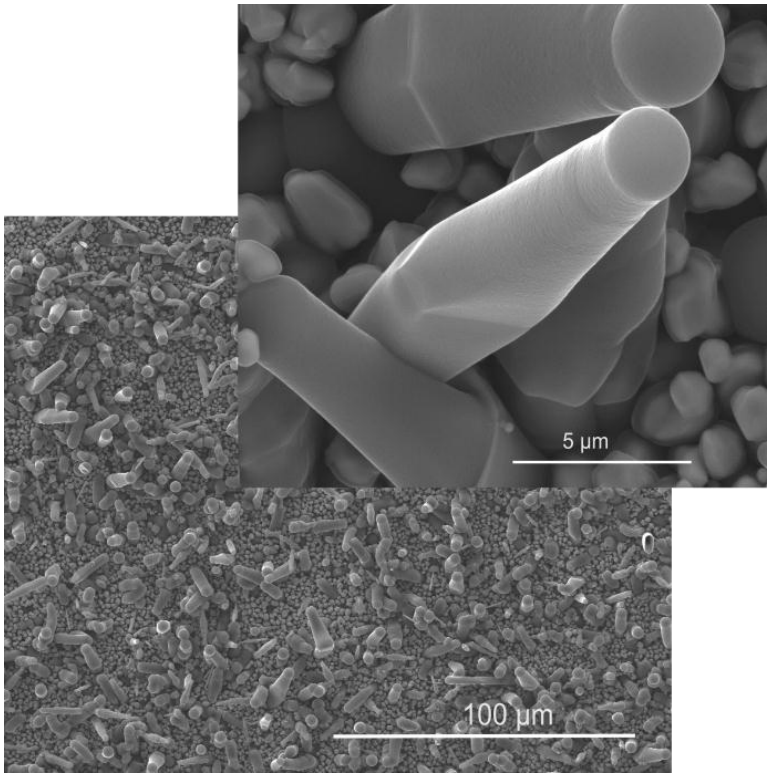


Figure C: Formation of the by-product, 2-(2,2,2-trifluoroethyl)pyridine, which was detected using NMR technique.

To prove the suggested Stranski-Krastanov growth mechanism of the copper particle the temperature of the precursor was significant increased to 180°C resulting in the increase of precursor flow. This led to formation of single copper rodes on the granular copper film. After the formation thin copper layer the growth continues through the nucleation and coalescence of adsorbate islands (Figure D).



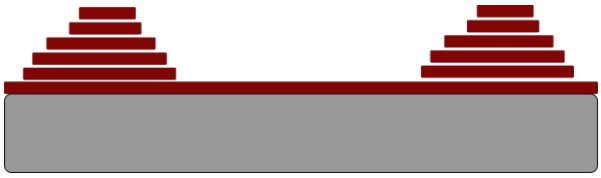


Figure D: SEM micrographs (top) of copper rodes synthesized at $T_{precursor}$ = 180°C (t_{dep}.= 60 min; $T_{substrate}$ =780°C) to prove the suggested Stranski-Krastanov growth mechanism (sketch, bottom) .