



Fig. 1: Elemental maps obtained by O-TOF-SIMS in the FIB/SEM UHV workstation on  $\gamma$ - $\gamma'$  Ni based superalloy, revealing that the very fine (few tens of nm) precipitates are indeed consistent with  $\gamma'$ -Ni<sub>3</sub>(Al, Ti). FIB conditions were 30kV, 1pA and 50 $\mu$ s of pixel time. The total time of this FIB/SIMS analysis was 30 seconds. At bottom on the right the secondary electron image show in the red square the localization of the SIMS analyse.