

Supplemental information

Fig. S1. The XPS depth profile for oxide formed at 450°C without [hydrogen annealing](#)

Fig. S2. The XPS depth profile for oxide formed at 450°C with [hydrogen annealing](#)

Fig. S3. The XPS survey at the depth of 200 nm for oxide formed at 750°C without [hydrogen annealing](#)

Fig. S4. The XPS survey at the depth of 360 nm for oxide formed at 750°C with [hydrogen annealing](#)

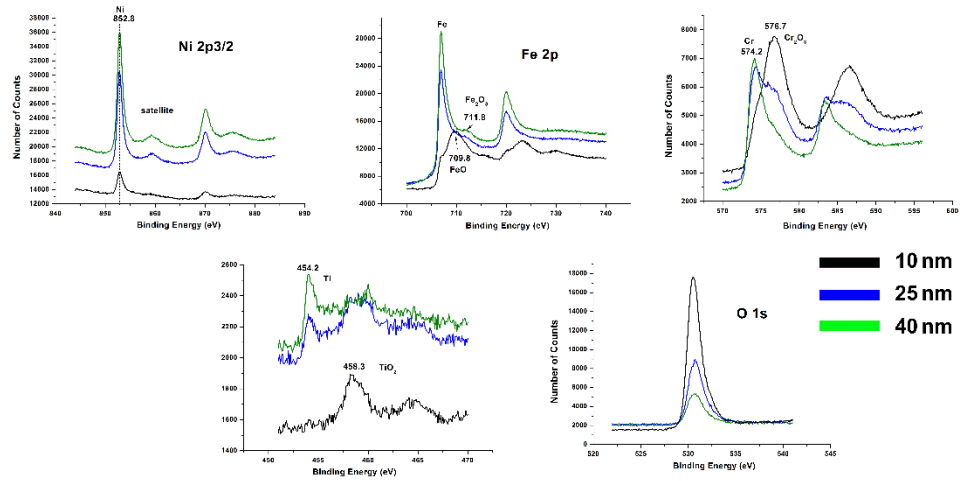


Fig. S1.

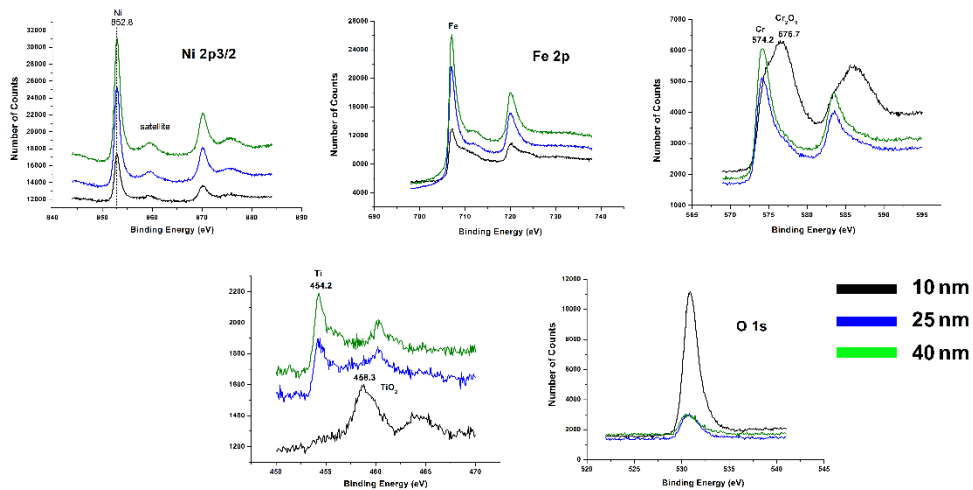


Fig. S2.

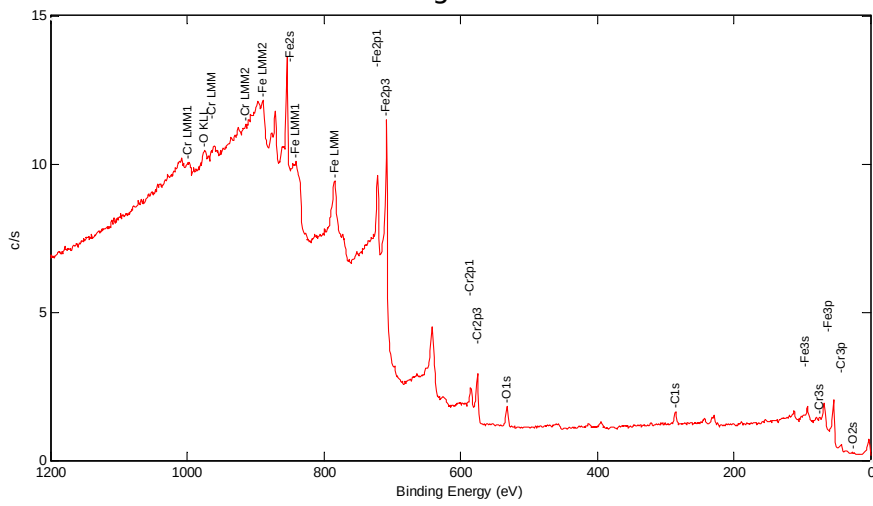


Fig. S3.

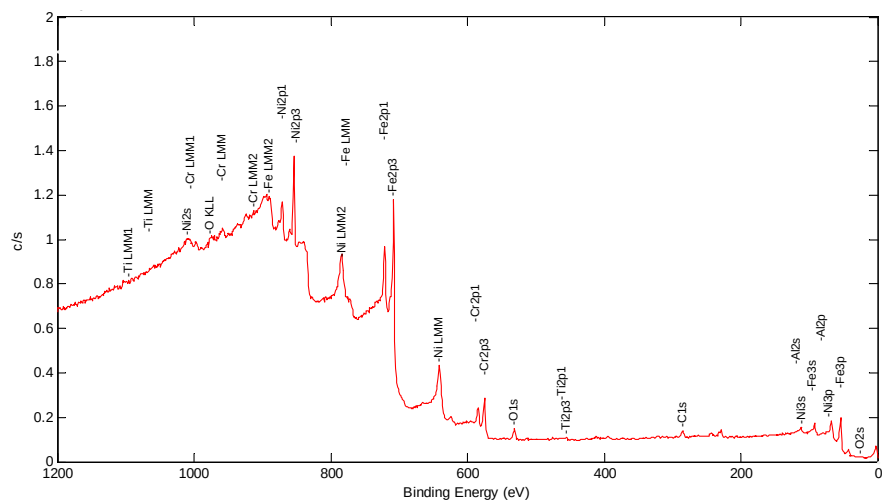


Fig. S4.