

Topic : Elaboration and characterization of Si rich coating on steel

Keywords : metallurgy, surface treatment, steel, coating

Host laboratory or academic department : Unité Matériaux Et Transformations (UMET)
(<http://umet.univ-lille1.fr/index.php?&lang=en>)

Supervisor : Prof. David BALLOY

Email : david.balloy@univ-lille1.fr

Laboratory: Materials Science Department / UMET

Level of studies :

Bachelor's level (undergraduate)

Master's level (postgraduate) x

Duration :

3 months

4 months

5 months

Type of evaluation

Written report and oral defense

Project description:

In recent studies, we have shown that Si-Fe alloys with high content of Si presents very interesting properties namely in terms of corrosion and tribology behavior.

We actually try by different means to enrich the surface of a steel in Si.

The object of this work, is to test at lab scale a process for Si diffusion at the surface of steel and to characterize the results by different means like optical micrography, SEM and micro hardness.

No funding available from the laboratory.