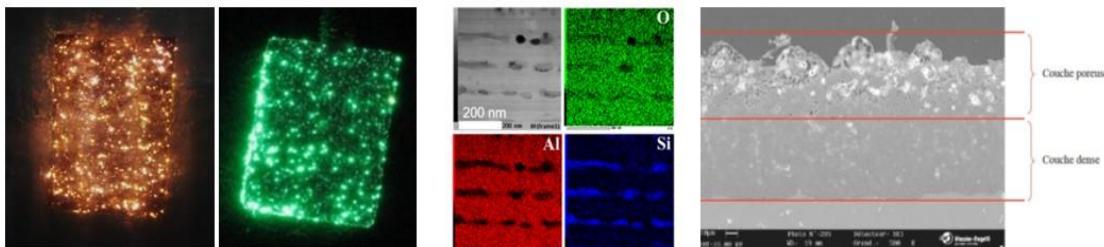


Our skills

Micro-arc oxidation (MAO) and process control



YOUR NEEDS

- Improve the mechanical properties (hardness, wear resistance, friction) of your light alloy parts (Al, Mg, Ti)
- Develop new anti-corrosion layers
- Control your micro-arc oxidation processes
- Characterize your modified surfaces
- Optimize your manufacturing parameters
- Maintain or develop your skills

RELATED SKILLS

- Development and control of plasma processes
- Plasma structuring
- Diagnosis of micro-arc plasmas
- Optical Emission Spectroscopy
- Very high speed video imaging (10^6 fps)
- Image analysis
- Material and surface analyses: (SEM, TEM, XRD, etc.)

OUR SOLUTIONS

- Make our skills and devices (elaboration, treatment and characterization) available to support you in your innovation process
- Use our micro-arc installations
- Help you to develop an innovative process
- Carry out microstructural and structural characterizations of your thin layers (SEM, TEM)
- Carry out chemical quantification measurements (SDL, SIMS)
- Carry out 3D surfometric mapping
- Carry out tribological tests
- Carry out R&D projects
- Help you to transitioning from laboratory scale to industrial scale

OUR REFERENCES



LIEBHERR



KEYWORDS

Micro-arc oxidation (MAO), electrolytic plasma oxidation (PEO), spectroscopy, ultra-fast video imaging, characterization of thin layers, tribometry

CONTACT

- Contact the research group:
-  gerard.henrion@univ-lorraine.fr
 julien.martin@univ-lorraine.fr
 +33 3 72 74 24 89

- Contact the Technology Transfer Office (TTO):

-  ijl-tto@univ-lorraine.fr
 +33 3 72 74 26 04