Nanoparticle-Enhanced Laser-Induced Breakdown Spectroscopy of metallic samples

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Conclusions

- ✓ Minimum sample pre-treatment (NELIBS) => emission enhancement
- ✓ Decrease in the breakdown threshold
- ✓ General effect for metallic substrates
- ✓ Sensitivity improvement
- ✓ Further application to NPs fast characterization

[1] *A. De Giacomo, R. Gaudiuso, C. Koral, M. Dell'Aglio, O. De Pascale, Nanoparticle-Enhanced Laser Induced Breakdown Spectroscopy of metallic samples,* ***Analytical Chemistry, 85 (2013) 10180-10187.***

[2] *A. De Giacomo, R. Gaudiuso, C. Koral, M. Dell'Aglio, O. De Pascale, Nanoparticle Enhanced Laser Induced Breakdown Spectroscopy (NELIBS): effect of nanoparticles deposited on sample surface on laser ablation and plasma emission,* ***Spectrochimica Acta Part B 98 (2014) 19–27***