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Nanostructured electrodes generated by electrophoretic deposition

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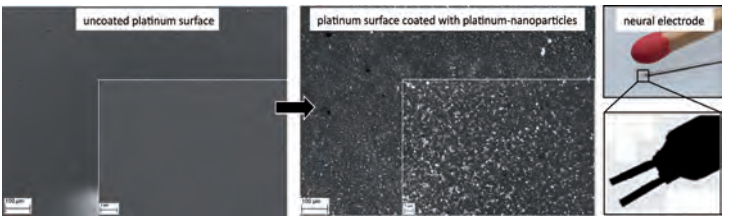

We investigate the surface-structuring of electrodes with nanoparticles by electrophoretic deposition. Electrophoretic deposition is a clean and cost effective technique for the deposition of nanoparticles on electrode surfaces. Ligand-free nanoparticles generated by pulsed laser ablation in liquids (PLAL) are ideal candidates for electrophoretic deposition because they have high charge and a bare surface. For the nano-surface-structuring of electrodes a variety of materials and material compounds are available and accessible by PLAL.

The team offers

- Nanostructured surfaces
- Nanoparticles with same compound as surface (i.e. metals or metal alloys)
- Electrodes optimized for biomedical or energy application

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