



Electrografting via Diazonium Chemistry: From Multilayer to Monolayer Using Radical Scavenger

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Résumé en anglais	<p>A simple strategy to avoid the formation of polyaryl layer during the functionalization of carbon surface by diazonium electroreduction is presented. The approach proposes to directly act on the polymerization mechanism by the use of a radical scavenger. The kinetic gap between the surface coupling and the multilayer formation is exploited to prevent the growth of the layer without interfering with the grafting. The well-known 4-nitrobenzenediazonium electrografting was used to demonstrate the possibility of reaching a monolayer surface coverage with an excess of DPPH (2,2-diphenyl-1-picrylhydrazyl). Experimental conditions were varied to validate the efficiency of the grafting limitation and the radical capture was confirmed by isolation of the aryl radical/DPPH coupling product.</p>
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Liens

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