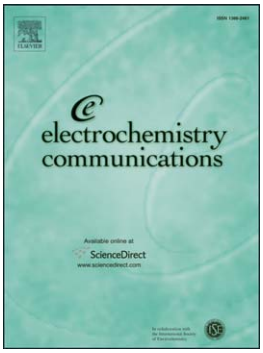

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Chemical functionalization of activated carbon through radical and diradical intermediates.

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ABSTRACT.

Small redox molecules were grafted on carbon through radical and diradical procedures. The reactive intermediates were derived from the 3,4-dimethoxybenzenediazonium salt and the 4,5-dimethoxybenzenediazonium-2-carboxylate salt prepared and decomposed in situ, yielding the dimethoxybenzene radical and the analogous diradical benzyne, respectively. In both cases, the activated carbon Norit serves as trapping agent and the dimethoxybenzene-carbon composites obtained were compared by thermal gravimetric analysis, X-ray photoelectron spectroscopy and cyclic voltammetry. After oxidative ether cleavage of dimethoxybenzene molecules attached to the surface, the resultant