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Reduced Carbon Nanodots as a Novel Substrate for Direct Analysis of Bisphenol Analogs in Surface Assisted Laser Desorption/Ionization Time of Flight Mass Spectrometry

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ABSTRACT:

Carbon dots (CDs) have attracted much attention in a variety of fields owing to the diversified properties. However, the control of the structure and surface function of CDs are still urgent issues to be addressed for using it in specific application. Herein, the reduced state of carbon nanodots (R-CDs) has been produced through a convenient strategy by reduction of the pure carbon dots products, which was utilized as a good candidate of matrix for direct analysis of bisphenol (BP) analogs in negative-ion surface-assisted laser desorption/ionization time-of-flight mass spectrometry (SALDI-TOF MS). Due to the dominant hydroxyl groups on the surface of R-CDs, they were easier to absorb BPs through hydrogen bonding and van der

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