A new rotating-disk sorptive extraction mode, with a copolymer of divinylbenzene and N-vinylpyrrolidone trapped in the cavity of the disk, used for determination of florfenicol residues in porcine plasma Microextraction Techniques

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A novel extraction approach was developed based on rotating-disk sorptive extraction (RDSE). In this approach the rotating-disk extraction device consists of a Teflon disk, with a cavity that is loaded with a commercial sorbent phase selected according to the polarity of the analyte. To avoid leakage of the sorbent, the cavity is covered with a fiberglass filter and sealed with a Teflon ring. The proposed novel analytical RDSE technique was used in this study to determine florfenicol levels in plasma as a model analyte, or sample system, to describe the pharmacokinetics of a veterinary formulation. The sorbent used for this application was the copolymer of divinylbenzene and N-vinylpyrrolidone (Oasis HLB), which was selected because the florfenicol molecule contains both hydrophilic and lipophilic moieties. After the extraction, final determination of the analyte was performed by HPLC-DAD. Calibration plots and other analytical features were obtained after 90 min of extraction. The cal