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ABSTRACT

Lumefantrine is the first-choice treatment of *Falciparum* uncomplicated malaria. Recent findings of resistance to lumefantrine has brought attention for the importance of therapeutic monitoring, since exposure to subtherapeutic doses of antimalarials after administration is a major cause of selection of resistant parasites. Therefore, this study focused on the development of innovative, selective, less expensive and stable molecularly imprinted polymers (MIPs) for solid-phase extraction (SPE) of lumefantrine from human plasma to be used in drug monitoring. Polymers were synthesized by precipitation polymerization and chemometric tools (Box-Behnken design and surface response

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