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Title: Rapid ionic liquid-supported nano-hybrid composite reinforced hollow-fiber electromembrane extraction followed by field-amplified sample injection-Capillary electrophoresis: An effective approach for extraction and quantification of Imatinib mesylate in human plasma

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Rapid ionic liquid-supported nano-hybrid composite reinforced hollow-fiber electromembrane extraction followed by field-amplified sample injection-Capillary electrophoresis: An effective approach for extraction and quantification of Imatinib mesylate in human plasma

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Highlights:

- A new design of electromembrane extraction (IL-MWCNTs@ZnO-HF-EME) was developed.
- This EME concept was combined with FASI-CE-UV for quantitation of Imatinib mesylate.
- This is the first report describing the possibility of cooperative use of EME and FASI techniques.
- The proposed method was fully validated according to the FDA guidelines.
- The validated assay was used to determine the selected drug in GIST patient's plasma samples.

Abstract:

The focus of this study is development of a new, convenient, rapid and sensitive electromembrane extraction approach (based on an ionic liquid-supported MWCNTs/ZnO reinforced hollow fiber, for the first time) as an off-line sample clean-up/preconcentration

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