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Application of dual cloud point extraction for the enrichment of zinc in serum samples of psychiatric patients prior to analysis by FAAS

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Abstract

It is reported in literature that zinc (Zn^{2+}) has antidepressant activity. In present study Zn^{2+} was analyzed in blood serum of male patients having various psychiatric disorders (schizophrenia, depression, bipolar). As it is usually present in trace levels. Hence a novel, environmental friendly, dual-cloud point extraction (*d*-CPE) method was developed for the enrichment of its trace levels in acid digested serum samples. In the first step of *d*-CPE, Zn^{2+} was complexed with 1-(2-pyridylazo)-2-naphthol (PAN), and the complex was entrapped in a nonionic surfactant (Triton X-114). After

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