Possibility of ICP-OES in the determination of platinum group elements in environmental samples

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The basic problems in the determination of PGEs by ICP-OES in environmental materials are the very low elements concentrations and complex sample matrices. In the present study a radial viewing 40.68 MHz ICP was used for determination of Pt, Pd and Rh. The limits of quantifications (LOQs) were improved by optimization of the operating conditions, optimal line selection and separation/preconcentration of analytes from matrix elements. A solid phase extraction method with 2-mercaptobenzimidazole modified activated carbon was proposed.