

New extractants for separation of some Platinum-group and base metal ions from Nitric Acid solutions

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In this study, the results on the design and application of three-structurally related thiodiglycolamides (TDGA) derivatives are presented. The extraction behavior of these new extractants towards selected Platinum-Group and Base Metal Ions from nitric acid medium was studied. The structure reactivity relationship with extraction of investigated metal ions is studied. These extractants showed great extractability and selectivity for palladium than the other investigated metal ions. Pd(II) was found to be easily separated from other investigated metal ions in a single extraction step. A systematic investigation has been carried out. The overall data already achieved suggest that TDGA is good extractants for palladium and may be candidates for further evolution using real solutions resulting from recycling processes.