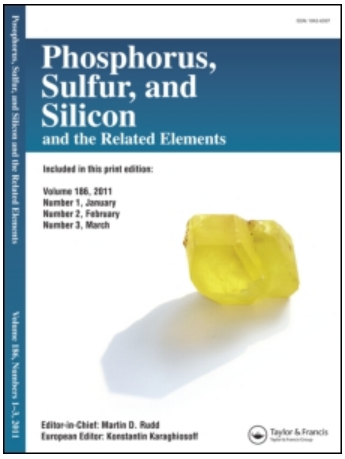

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Dialkyl(Aryl) [Dialkylcarbamoylmethyl]Phosphine Oxides as Extractants for Concentrating of Transplutonium Elements from Acid Media

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DIALKYL(ARYL)[DIALKYLCARBAMOYLMETHYL]PHOSPHINE OXIDES AS EXTRACTANTS FOR CONCENTRATING OF TRANSPLUTONIUM ELEMENTS FROM ACID MEDIA

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Dialkyl(aryl)carbamoylmethylphosphine oxides (CMPO), prepared by interaction of tervalent phosphorus acid esters with chloracetic amides

$R^1R^2P(O)CHR^4C(O)NR^3_2$, R^1, R^2, R^3, R^4 = Alkyl or Aryl, can be used successfully for concentrating the transplutonium elements.[1]

Extraction of Am(111), Pu(1V), U(V1) from acid solutions by CMPO of different structure has been studied.

The nature of substituents at phosphorus and nitrogen atoms and in methylene bridge affects the extraction capacity, solubility and selectivity of reagents.

The advantages of the reagent with two different radicals, one of which is phenyl at phosphorus atom, has been demonstrated.

Addition of TBP to the studied reagents allows to increase extraction capacity and loading of reagents, and improve compatibility with a number of solvents.

1. B.F.Myasoedov, M.K.Chmutova et al., Solv. Extr. and Ion Exch., 4, 61-81, (1986).