

Title (en)

Process for extracting uranium and/or plutonium IV from an aqueous solution by means of N,N-dialkylamides.

Title (de)

Verfahren zum Extrahieren von Uran und/oder Plutonium IV aus einer wässrigen Lösung mittels N,N-Dialkylamiden.

Title (fr)

Procédé d'extraction de l'uranium VI et/ou de plutonium IV présents dans une solution aqueuse au moyen de N,N-dialkylamides.

Publication

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Application

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Priority

FR 8518015 A 19851205

Abstract (en)

[origin: US4772429A] The invention relates to a process for the extraction of uranium (VI) and/or plutonium (IV) present in an aqueous solution by means of N,N-dialkylamides. These N,N-dialkylamides are in accordance with formula: <IMAGE> (I) in which R¹ is a straight or branched alkyl radical with 2 to 12 carbon atoms, R² and R⁴, which can be the same or different, are straight or branched alkyl radicals with 2 to 6 carbon atoms, R³ and R⁵, which can be the same or different, are straight or branched alkyl radicals with 1 to 6 carbon atoms and a and b, which can be the same or different, are integers between 1 and 6. For example, it is possible to use N,N-di-(2-ethyl hexyl)-2,2-dimethyl butyramide, N,N-di-(2-ethyl hexyl)-hexanamide or N,N-di-(2-ethyl hexyl)-dodecanamide for simultaneously extracting uranium and plutonium, or for separating the uranium from the plutonium without reducing the latter.

Abstract (fr)

L'invention a pour objet un procédé d'extraction de l'uranium (VI) et/ou du plutonium (IV) présents dans une solution aqueuse au moyen de N,N-dialkylamides. Ces N,N-dialkylamides répondent à la formule : <IMAGE> dans laquelle R¹ est un radical alkyle linéaire ou ramifié de 2 à 12 atomes de carbone, R² et R⁴ qui peuvent être identiques ou différents sont des radicaux alkyle linéaires ou ramifiés de 2 à 6 atomes de carbone, R³ et R⁵ qui peuvent être identiques ou différents sont des radicaux alkyle linéaires ou ramifiés de 1 à 6 atomes de carbone, et a et b qui peuvent être identiques ou différents sont des nombres entiers allant de 1 à 6. A titre d'exemples, on peut utiliser le N,N-di(éthyl-2 hexyl) diméthyl-2,2 butyramide, le N,N-di(éthyl-2 hexyl) hexanamide ou le N,N-di(éthyl-2 hexyl) dodécanamide, pour extraire simultanément l'uranium et le plutonium ou pour séparer l'uranium du plutonium sans réduire ce dernier.

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IPC 8 full level

G21C 19/46 (2006.01); **C01G 43/00** (2006.01); **C01G 56/00** (2006.01); **C22B 60/02** (2006.01)

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