

(19)



Europäisches Patentamt
European Patent Office
Office européen des brevets



(11) Publication number:

0 603 708 A3

(12)

EUROPEAN PATENT APPLICATION(21) Application number: **93120118.0**(51) Int. Cl.⁵: **G21F 9/14, G21F 9/32**(22) Date of filing: **14.12.93**(30) Priority: **18.12.92 US 993945**(43) Date of publication of application:
29.06.94 Bulletin 94/26(84) Designated Contracting States:
DE FR GB IT(88) Date of deferred publication of the search report:
27.07.94 Bulletin 94/30(71) Applicant: **E.I. DU PONT DE NEMOURS AND COMPANY**

**1007 Market Street
Wilmington Delaware 19898(US)**

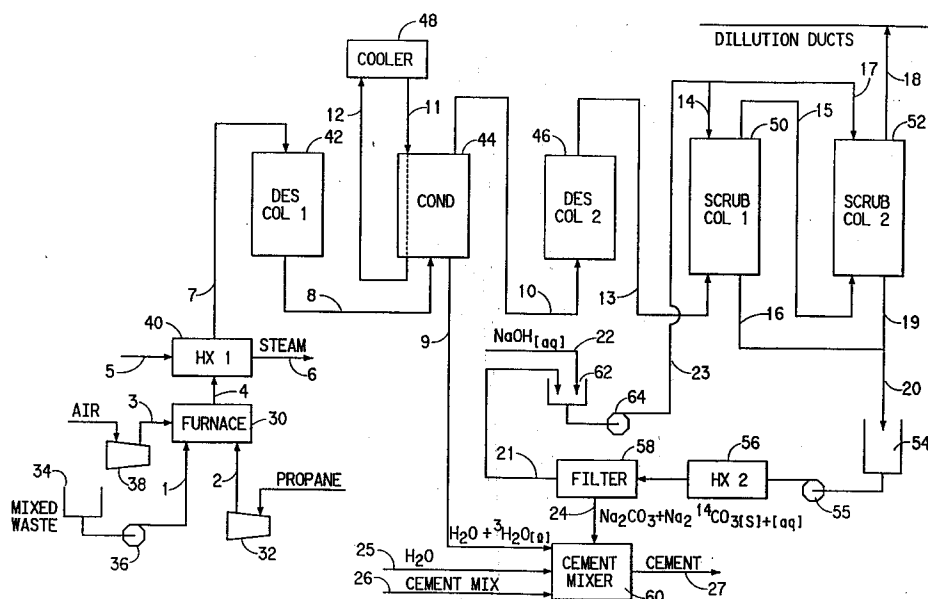
(72) Inventor: **Schaeffer, Steven T.
23 Voyagers Lane
Ashland, Massachusetts 01721(US)**

(74) Representative: **von Kreisler, Alek,
Dipl.-Chem. et al
Patentanwälte
von Kreisler-Selting-Werner
Bahnhofsvorplatz 1 (Deichmannhaus)
D-50667 Köln (DE)**

(54) **A process for the combustion, separation, and solidification of ^3H and ^{14}C from combustible liquids.**

(57) This invention relates to a process for combustion, separation, and solidification of ^3H and ^{14}C from a combustible liquid stream. Gaseous combustion gases containing $^3\text{H}_2\text{O}$ and $^{14}\text{CO}_2$ are processed by absorption of the $^{14}\text{CO}_2$ with caustic solution to

produce a ^{14}C salt and condensation and/or removal of gaseous $^3\text{H}_2\text{O}$ through the use of a desiccating agent. Liquid $^3\text{H}_2\text{O}$ and a slurry solution containing the ^{14}C salt are solidified through the addition of a solidifying agent.

**EP 0 603 708 A3**



European Patent
Office

EUROPEAN SEARCH REPORT

Application Number
EP 93 12 0118

DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int.Cl.5)
Y	DATABASE INIS INTERNATIONAL ATOMIC ENERGY AGENCY (IAEA), VIENNA, AT NOTZ, K.J. ET AL 'Processes for the control of 14C02 during reprocessing.' * abstract * & JUL 1980. 30 P. AVAILABLE FROM NTIS., PC A03/MF A01. UNITED STATES ---	1,3,4,8, 9,11	G21F9/14 G21F9/32
Y	EP-A-0 149 783 (HITACHI) * claims 1,6,8 * * figure 7 * * abstract; example 1 * ---	1,3,4,8, 9,11	
Y,P	DE-A-41 41 269 (RWE ENERGIE AG) * abstract; claims 1,8 * * column 2, line 55 - column 3, line 13 * -----	1,3,4,8, 9,11	
			TECHNICAL FIELDS SEARCHED (Int.Cl.5)
			G21F
The present search report has been drawn up for all claims			
Place of search THE HAGUE		Date of completion of the search 30 May 1994	Examiner Nicolas, H
CATEGORY OF CITED DOCUMENTS			
X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document		T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document	