

11-16-1998

Form PTO-1595 RE Modified 11/5/98



Union Carbide Corporation

100878503

Record the attached original

To the HONORABLE ASSISTANT COMMISSIONER OF PATENTS and TRADEMARKS

1. Name of conveying party(ies): David Mason Gaines; Philip Everett Harrison; Roger Brady Painter; Bill Jack Garner

2. Name and address of receiving party: UNION CARBIDE CHEMICALS & PLASTICS TECHNOLOGY CORPORATION 39 Old Ridgebury Road Danbury, Connecticut 06817-0001 United States of America

Additional name(s) of conveying party(ies) attached? [] Yes [x] No

3. Nature of conveyance: [X] Assignment Execution Date: October 12, 13, 20, 1998 & November 2, 1998

Additional name(s) & address(es) attached? [] Yes [X] No

4. Application number(s) or patent number(s): If this document is being filed together with a new application, the execution date of the application is: A. Patent Application No.(s) B. Patent No.(s) Additional numbers attached? [] Yes [X] No

5. Name and address of party to whom correspondence concerning document should be mailed: Mr. Stanley J. Paccione UNION CARBIDE CHEMICALS & PLASTICS TECHNOLOGY CORPORATION Location E2-05 39 Old Ridgebury Road Danbury, CT 06817-0001

6. Total number of applications and patents involved: 1 7. Total fee (37 CFR 3.41): \$ 40.00 [x] Enclosed [] Authorized to be charged to deposit account [X] Deficiency/overpayment authorized to be charged/credited to deposit account. 8. Deposit account number: 21-0100 (Attach duplicate copy of this page if paying by deposit account)

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9. Statement and signature. To the best of my knowledge and belief, the foregoing information is true and correct and any attached copy is a true copy of the original document. Bonnie L. Deppenbrock Name of Person Signing Signature Date November 5, 1998 Total number of pages including cover sheet, attachments, and document: 5 Our Ref.: D-17852

Do not detach this portion

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U.S. Patent and Trademark Office Office of Public Records Crystal Gateway 4, Room 335 Washington, D.C. 20231

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Vertical stamp: 11/05/98, 09/18/98, JCS40 U.S. PTO

**ASSIGNMENT OF INVENTION, PRIORITY RIGHTS
AND RIGHTS TO APPLY FOR PATENTS**

We, the undersigned, David Mason Gaines, Engineer; Philip Everett Harrison, Technician;
Roger Brady Painter, Engineer, Billy Jack Garner, Engineer; respectively residing 114 Heritage
Drive, St. Albans, W.V. 25177; 6 Dover Street, Winfield, W.V. 25213; 307 Poplar Estates, Scott
Depot, W.V. 25560; 25 Chatwood Road, Charleston, WV 25304

HEREBY STATE UNDER OATH that we are the original, first and joint inventors of an
invention for IMPROVED PROCESS FOR DRYING A REACTOR SYSTEM EMPLOYING
A FIXED BED ADSORBENT

as described and/or claimed in our application for Letters Patent in the United States of America,
executed on the 13 day of October 1998, by said David Mason Gaines
executed on the 12 day of October 1998, by said Philip Everett Harrison
executed on the 02 day of NOVEMBER 1998, by said Roger Brady Painter
executed on the 20 day of October 1998, by said Billy Jack Garner
Serial No. _____, filed on the _____ day of _____ 19____, (Case No. D-17852).

NOW, THEREFORE, in consideration of our employment by Union Carbide Corporation,
manufacturers, a corporation organized and existing under the laws of the State of New York,
United States of America and having an office at 39 Old Ridgebury Road, Danbury, State of
Connecticut, 06817-0001, United States of America, and having as its wholly-owned subsidiary,

UNION CARBIDE CHEMICALS & PLASTICS TECHNOLOGY CORPORATION

technology licensors, a corporation organized and existing under the laws of the State of
Delaware, United States of America, and having an office at 39 Old Ridgebury Road, Danbury,
State of Connecticut, 06817-0001, United States of America.

WE DO HEREBY ASSIGN AND TRANSFER, without any restrictions, reservations or
limitations, our entire right, title, and interest in and to said invention and application unto, as the
Assignee, the aforesaid

UNION CARBIDE CHEMICALS & PLASTICS TECHNOLOGY CORPORATION

its successors, assigns and nominees, and the entire right, title and interest in and to all patents
which may be granted thereon, and all divisions, continuations, continuations-in-part, reissues,
reexaminations and extensions thereof;

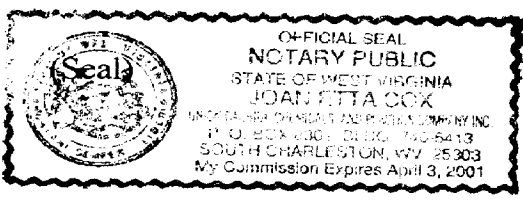
AND ALL PRIORITY RIGHTS derived from the aforesaid application for Letters Patent
by virtue of the International Convention for the Protection of Industrial Property, for any and all
member countries of the aforesaid International Convention;

AND THE SOLE RIGHT to file such applications under the Patent Laws of any country
of the world in its name and/or ours, and the sole right to have patents granted on said applications
in its name and/or ours to the full end of the term for which said patents may be granted as fully
and entirely as the same would have been held by us had this assignment not been made, and to
enforce said patents with our right to sue for and recover accrued profits or damages for any and
all infringements thereof;

State of West Virginia)
County of Kanawha) ss:

This 13 day of October, 1998 before me personally came the above-named David Mason Gaines to me personally known as the individual who executed the foregoing assignment, who has acknowledged to me that he/she executed the same of his/her own free will for the purposes therein set forth.

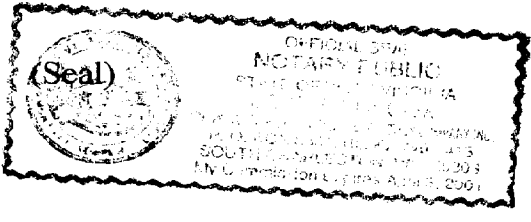
Joan Etta Cox
Notary Public



State of West Virginia)
County of Kanawha) ss:

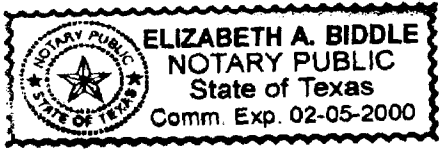
This 12 day of October, 1998 before me personally came the above-named Philip Everett Harrison to me personally known as the individual who executed the foregoing assignment, who has acknowledged to me that he/she executed the same of his/her own free will for the purposes therein set forth.

Joan Etta Cox
Notary Public



State of Texas)
County of Harris) ss:

This 1st day of November 1998, before me personally came the above-named Roger Brady Painter to me personally known as the individual who executed the foregoing assignment, who has acknowledged to me that he/she executed the same of his/her own free will for the purposes therein set forth.



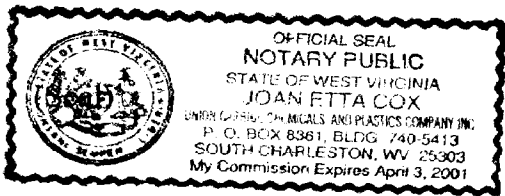
Elizabeth A. Biddle
Notary Public

(Seal)

State of West Virginia)
County of Roanoke) ss:

This 20 day of October 1998 before me personally came the above-named Billy Jack Garner to me personally known as the individual who executed the foregoing assignment, who has acknowledged to me that he/she executed the same of his/her own free will for the purposes therein set forth.

Joan Etta Cox
Notary Public



AND AUTHORIZE the above-named Assignee to insert in this instrument the serial number and filing date of said application;

AND AUTHORIZE AND REQUEST the Commissioner of Patents and Trademarks to issue all patents on said invention to said UNION CARBIDE CHEMICALS & PLASTICS TECHNOLOGY CORPORATION as Assignee of the entire right, title and interest, and covenant that we have full right so to do, and agree that we will communicate to said Corporation or its representatives any facts known to us respecting said invention and testify in any legal proceedings, sign all lawful papers, execute all divisional, continuing and reissue applications, make all rightful oaths and generally do everything possible to aid said Corporation, its successors, assigns, and nominees, to obtain and enforce proper protection for said invention in all countries.

SIGNED AND SEALED at South Charleston this 13 day of Oct, 1998.
West Virginia

WITNESSES:

David Mason Games
David Mason Games

- Shawn H. Canterbury
- Elizabeth A. Stern

SIGNED AND SEALED at South Charleston this 12th day of October, 1998.
West Virginia

WITNESSES:

Philip Everett Harrison
Philip Everett Harrison

- Jessie A. Glover
- Elizabeth A. Stern

SIGNED AND SEALED at HOUSTON, TEXAS this 02nd day of NOVEMBER, 1998.

WITNESSES:

Sally A. Stauffer
Roger Brady Painter
Roger Brady Painter

- Linda S. McThee
- Elizabeth C. Peddie

SIGNED AND SEALED at South Charleston this 20th day of OCTOBER, 1998.
West Virginia

WITNESSES:

Billy Jack Garner
Billy Jack Garner

- Linda S. McThee
- Carolyn E. Reed