To the Honorable Commissioner of Patents and Trademarks: P	
1. Name of conveying party(ies):  Dennis J. Miller,  Dushyant Shekhawat,  Kirthivasan Nagarajan,  James E. Jackson  Additional name(s) of conveying party(ies) attached?  Yes M No	Name and address of receiving party(ies)     Board of Trustees operating     Name: Michigan State University  Internal Address:
3. Nature of conveyance:	
🛚 Assignment 🗀 Merger	Street Address: 238 Administration Bldg.
☐ Security Agreement ☐ Change of Name ☐ Other ☐ Dennis J.Miller-9/19/00; Dushyant Execution Date: Shekhawat-9/26/00; Kirthivasa Nagarajan-10/27/00; James E. Jackson 9/1	City: East Lansing State: MI ZIP: 48824  an Additional name(s) & address(es) attached?   Yes Xi No
<ol><li>Application number(s) or patent number(s):</li></ol>	
	n, the execution date of the application is:
	n, the execution date of the application is:  B. Patent No.(s)
If this document is being filed together with a new application  A. Patent Application No.(s)  09/667,842	
If this document is being filed together with a new application  A. Patent Application No.(s)  09/667,842	B. Patent No.(s)
If this document is being filed together with a new application  A. Patent Application No.(s)  09/667,842  Additional numbers at  5. Name and address of party to whom correspondence	B. Patent No.(s)  ttached?  Yes Ma No
If this document is being filed together with a new application  A. Patent Application No.(s)  09/667,842  Additional numbers at  5. Name and address of party to whom correspondence concerning document should be mailed:	B. Patent No.(s)  ttached?   Yes M No  6. Total number of applications and patents involved:
If this document is being filed together with a new application  A. Patent Application No.(s)  09/667,842  Additional numbers at  5. Name and address of party to whom correspondence concerning document should be mailed:  Name:Ian C. McLeod	B. Patent No.(s)  ttached?  Yes M No  6. Total number of applications and patents involved:  7. Total fee (37 CFR 3.41)
If this document is being filed together with a new application  A. Patent Application No.(s)  09/667,842  Additional numbers at  5. Name and address of party to whom correspondence concerning document should be mailed:  Name:Ian C. McLeod	B. Patent No.(s)  ttached?  Yes No  6. Total number of applications and patents involved:  7. Total fee (37 CFR 3.41)
If this document is being filed together with a new application  A. Patent Application No.(s)  09/667,842  Additional numbers at  5. Name and address of party to whom correspondence concerning document should be mailed:  Name: Ian C. McLeod  Internal Address:	B. Patent No.(s)  ttached?  Yes M No  6. Total number of applications and patents involved: 1  7. Total fee (37 CFR 3.41)

Mail documents to be recorded with required cover sheet information to: Commissioner of Patents & Trademarks, Box Assignments Washington, D.C. 20231

Signature

Total number of pages including cover sheet, attachments, and document:

Ian C. McLeod

Name of Person Signing

11/03/00

Date

## ASSIGNMENT

WHEREAS, We, Dennis J. Miller, Dushyant Shekhawat, Kirthivasan Nagarajan and James E. Jackson, residing at 2904 Chickory Dr., West Richland, Washington 99353, 808 J Cherry Lane, East Lansing, Michigan 48823, 1 LAKE SHORE DRIVE, METHEB WATERVLIET, NYIZE, and 6232 W. Reynolds Road, Haslett, Michigan 48840, respectively, have invented certain new and useful improvements in CATALYSTS AND PROCESSES FOR THE CONVERSION OF SUCCINATES TO CITRACONATES OR ITACONATES for which an application for United States Letters Patent was filed Sept. 21, 2000 and assigned Serial No. 09/667,842; and WHEREAS, Board of Trustees, a constitutional Corporation operating Michigan State University, (hereinafter referred to as Assignee) of East Lansing, State of Michigan is desirous of acquiring the entire right, title and interest in and to said invention and in and to any Letters Patent that may be granted therefor in the Jnited States and in any and all foreign countries.

NOW, THEREFORE, in consideration of the sum of One Dollar (\$1.00) to us in hand paid, the receipt whereof is hereby acknowledged, and other valuable considerations, We the said Dennis J. Miller, Dushyant Shekhawat, Kirthivasan Nagarajan and James E. Jackson, have sold, assigned and transferred, and by these presents do sell, assign and transfer unto said Assignee the full and exclusive right to the said invention in the United States and its territorial possessions and in all foreign countries and the entire right, title and interest in and to any and all Letters Patent which may be granted therefor in the United States and its territorial possessions and in any and all foreign countries and in any and all foreign countries and in and to any and all divisions, reissues, continuations and extensions thereof.

We hereby authorize and request the Patent and Trademark Office officials in the United States and any

and all foreign countries to issue any and all of said Letters Patent, when granted to said Assignee as the assignee of our entire right, title and interest in and to the same for the sole use and behoof of the said Assignee, its successors and assigns.

FURTHER, We agree that we will communicate to said Assignee or its representatives any facts known to us respecting said invention, and testify in any legal proceeding, sign all lawful papers, execute all divisional, continuation, substitution, renewal and reissue applications, execute all necessary assignment papers to cause any and all of said Letters Patent to be issued to said Assignee, make all rightful oaths and generally do everything possible to aid said Assignee, its successors and assigns, to obtain and enforce proper protection for said invention in the United States and in any and all foreign countries.

IN TESTIMONY WHEREOF, I have hereunto set my hand this $19^{+6}$ day of September, 2000. Signed in the Presence of:
Dennis J. Miller
STATE OF Washington:
COUNTY OF Bentern:
On this 9th day of 500., 2000, personally appeared before me the above Dennis J. Miller, to me known and known to me to be the person described in and who executed the foregoing instrument and acknowledged the same to be his free act and deed in and for the purposes set forth in said instrument.
SEAT C
Notary Public  My Commission Expires: 10-09-2002  Tonia M. Damera
IN TESTIMONY WHEREOF, I have hereunto set my hand this 26th day of SEPTEMBE? 2000.
Signed in the Presence of:
Dar M. Bunk Dushyant Shekhawat
STATE OF Michigan:
COUNTY OF :
On this 26 day of Sprember, 2000, personally appeared before me the above Dushyant Shekhawat, to me known and known to me to be the person described in and who executed the foregoing instrument and acknowledged the same to be his free act and deed in and for the purposes set forth in said instrument.
SEAL ROLL ROLL ROLL ROLL ROLL ROLL ROLL RO
Notary Public
My Commission Expires:
to the first of th

NOS 190 100 NOS 1000 100, NO MY OCCUPS OF SERVICE 2004 AC EVEN SERVICE 2004 2005 NO MI

hand this $27$ day of Ochober, 2000.
Signed in the Presence of:
Proc A CLAPK Hoothivaean, Kirthivasan Nagarajan
STATE OF :
COUNTY OF Albin' :
On this day of occupied, 2000, personally appeared before me the above named Kirthivasan Nagarajan to me known and known to me to be the person described in and who executed the foregoing instrument and acknowledged the same to be her free act and deed in and for the purposes set forth in said instrument.  SEAL Notary Public in the State of New Work  SEAL Notary Public in the State of New Work  Outside in Albany County No. 01CL6047444  Notary Public  My Commission Expires:   IN TESTIMONY WHEREOF, I have hereunto set my
hand this 15th day of September, 2000.
Signed in the Presence of:
James E. Jackson
STATE OF :
COUNTY OF :
On this day of leglemter, 2000, personally appeared before me the above named James E. Jackson to me known and known to me to be the person described in and who executed the foregoing instrument and acknowledged the same to be her free act and deed in and for the purposes set forth in said instrument.
SEAL Notary Public
My Commission Expires:
Notary Public - Ingham County, MI My Commission Expires April 30, 2004

**RECORDED: 11/06/2000**