08-30-2001 **FORM PTO-1595** U.S. Department of Commerce **Patent and Trademark Office** To the Assistant Commissioner to patents. Please ecord the attached original documents or copy thereof. TI-27180 2. Name and Address of receiving party(ies): Name of conveying party(ies): 7/25/01 Name: TEXAS INSTRUMENTS INCORPORATED Texas Instruments Limited 7/9/01 Graham Dring Address: P.C. Box 655474, MS 3999 7/23/01 Tammy Timms City: Dallas State: TX Zip: 75265 Additional name(s) & address(es) attached? ___ Yes _X_ No 3. Nature of Conveyance: _ Merger __X__ Assignment Security Agreement _ Change of Name Other_ Execution Date in order of listed parties: 7/25/01; 7/9/01; 7/23/01 4. Application number(s) or patent number(s). This document is being filed together with a new application. Execution date of the application in order of listed parties: : 7/25/01; 7/9/01; 7/23/01 Title: Regenerative Tie-High Tie-Low Cell Docket No: TI-27180 B. Patent No.(s) A. Patent Application No.(s) X,XXX,XXX S.N. 09/876,539 Add tional numbers attached? _____Yes __X__No __ Yes __X__ No Additional numbers attached? _ 6. Number of applications and patents involved: ____(1)____ 5. Name and address of party to whom correspondence concerning document should be mailed: Name: Rose Alyssa Keagy Texas Instruments Incorporated Address: P.O. Box 655474, MS 3999 Dallas Zip: 75265 TX State: 7. Amount of fee enclosed or authorized to be charged: \$40 8. Deposit Account No: 20-0668 (Attach duplicate copy if paying by deposit account) DO NOT USE THIS SPACE 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 documents

Total Number of Pages Including Cover Sheet, Attachments and Document: 3

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PATENT REEL: 012108 FRAME: 0012

ASSIGNMENT

WHEREAS, **TEXAS INSTRUMENTS LIMITED**, (hereinafter **TIL**), a British company of 800 Pavilion Drive, Mail Station 13, Northampton Business Park, Northampton NN4 7YL, United Kingdom and, by operation of English Law, the beneficial owners of all right, title and interest in an invention for which it has filed application in its own name for letters patent in the United Kingdom as set forth below; and

WHEREAS, **TEXAS INSTRUMENTS INCORPORATED**, a corporation organized and existing under the laws of the State of Delaware, with its principal office at 7839 Churchill Way, Mail Station 3999, Dallas, Texas 75251, USA, is desirous of acquiring the entire right, title and interest in and to the said invention outside of the United Kingdom, and in and to patent applications filed outside the United Kingdom and any Letters Patent that may issue thereon;

NOW, THEREFORE, for good and valuable consideration, the receipt of which is hereby acknowledged, by this Assignment, as of date executed, TIL sells and assigns to the said TEXAS INSTRUMENTS INCORPORATED, its successors and assigns, the entire right, title and interest in and to the said invention in the U.S.A. and in all other countries outside the United Kingdom and in and to the U.S. patent application identified below and all patents which may be granted therefor, and all divisions, reissues, substitutions, continuations, and extensions thereof; and the right to file applications and obtain patents in any other country or group of countries, and to claim priority under the terms of the International Convention for the Protection of Industrial Property or any other relevant convention;

TIL hereby authorizes and requests the Commissioner of Patents to issue all U.S. patents for said invention, or patents resulting therefrom, insofar as our interest is concerned to the said **TEXAS INSTRUMENTS INCORPORATED**, as assignee of the entire right, title and interest. **TIL** further agrees to execute any and all patent applications, assignments, affidavits, and any other papers in connection therewith necessary to perfect patent rights, and generally to do everything possible to aid said **TEXAS INSTRUMENTS INCORPORATED**, its successors, assigns and norninees to obtain and enforce proper patent protection for said invention in all countries other than the United Kingdom.

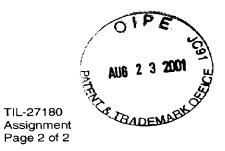
Title of Invention: REGENERATIVE TIE-HIGH TIE-LOW CELL

Inventor(s): Graham Dring, Tammy Timms

U.S. Application Serial No. 09/876,539 Filed: 7 June 2001

TIL-27180

PATENT REEL: 012108 FRAME: 0013



IN WITNESS WHEREOF this Assignment has been executed as set forth below:

By:

Name:

Comes

Title:

Date:

25 Houry Secretary

ACKNOWLEDGMENT

We, <u>Graham Dring and Tammy Timms</u>, inventors of certain new and useful improvements in the above entitled invention for which application for United States Letters Patent has been made, acknowledge that we are employees of TEXAS INSTRUMENTS LIMITED, that our invention was made in the course of our normal or specifically assigned duties as employees of TEXAS INSTRUMENTS LIMITED and that our invention and all rights in it belong to TEXAS INSTRUMENTS LIMITED by virtue of Section 39 of the Patents Act 1977.

We hereby further agree that we will communicate to TEXAS INSTRUMENTS LIMITED or to its successors, assigns and legal representatives, any facts known to us respecting said invention, and at the expense of TEXAS INSTRUMENTS LIMITED, to testify in any legal proceedings, sign all lawful papers, execute all divisional, continuation, reissue and substitute applications, make all lawful oaths and generally do everything possible to aid said TEXAS INSTRUMENTS LIMITED, its successors, assigns and nominees to obtain and enforce proper patent protection for said invention in all countries.

IN WITNESS WHEREOF, the or each said inventor has hereto set his hand and seal:

Graham Dring

RECORDED: 08/23/2001

Date

Tammy Timms

23 rd July 20

TIL-27180

PATENT REEL: 012108 FRAME: 0014