FORM PTO-1595

1/31/92 MR) 2/21 03-12-2002

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U.S. DEPARTMENT OF COMMERCE
ET PATENT AND TRADEMARK OFFICE



To the Honorable Commissioner of Patents and Trademarks: Please	record the attached original documents or copies thereof					
10 the Honorable Commissioner of Patents and Trademarks. Flease	record the attached original documents of copies thereor.					
Name of conveying party(ies):	2. Name and address of receiving party(ies):					
Charles E. Thorn, Frank Polakovic and Charles A. Mosolf	Electrochemicals Inc. 5350 Pioneer Creek Drive					
Additional name(s) of conveying party(ies) attached? [] Yes [X] No	Maple Plain, Minnesota 55359					
3. Nature of conveyance:						
[X] Assignment [] Merger	Additional name(s) & address(es) attached? [] Yes [X] No					
[] Security Agreement [] Change of Name						
[] Other:						
Execution Date: December 31, 2001, January 7, and January 2, 2002						
4. Application number(s) or patent number(s): 09/954,486						
If this document is being filed together with a new application, the execution da	te of the application is:					
A. Patent Application No.(s) 8. Patent No.(s) 09/954,486						
Additional numbers attached? [] Yes [X] No						
Name and address of party to whom correspondence concerning document should be mailed:	Total number of applications and patents involved: 1					
	7. Total fee (37 CFR 3.41): \$40.00					
McAndrews, Held & Malloy, Ltd. 500 West Madison Street	[X] Enclosed.					
34 th Floor Chicago, Illinois 60661	[] Authorized to be charged to deposit account.					
11/2002 GTDN11 00000335 09954486	8. Deposit account number: 13-0017.					
FC:581 40.00 DP	(Attach duplicate copy of this page if paying by deposit account).					
DO NOT USE 1	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 document.						
Signature and Registration Number: February 4, 2002						
Name of Person Signing: George Wheeler Total number of pages including cover sheet, attachments and document: 8						

PATENT REEL: 012646 FRAME: 0027

ASSIGNMENT (joint inventors)

We are the joint inventors whose names and residences are listed below:

Kenton Hills

Kenton

Charles E. Thorn, a resident of the City of Newport, in the County of Campbell, 1. State of Kentucky, and Country of United States of America.

MANDEANEIN

- Frank Polakovic, a resident of the City of Hanahaukin, in the County of 2. OCEPU, State of New Jersey, and Country of United States of America.
- 3. Charles A. Mosolf, a resident of the City of Juno Beach, in the County of Palm Beach, State of Florida, and Country of United States of America.

We have jointly made an invention comprising certain new, useful, and nonobvious improvements

PRINTED WIRING BOARDS AND METHODS FOR MAKING THEM

Said invention is described or intended to be described and set forth in the patent application presently identified as Docket No. 10059US09 which was filed on September 17, 2001 as United States Application Number 09/954,486.

Electrochemicals Inc., a corporation organized and existing under and by virtue of the laws of the State of Delaware (hereinafter: "said assignee"), having a place of business at 5350 Pioneer Creek Drive, Maple Plain, Minnesota 55359, desires to acquire the entire right, title, and interest in and to said invention, said application, and any Letters Patent which may be granted for said invention, said application, and any and all divisions, continuations, continuations-in-part, reissues, reexamination certificates, and extensions thereof.

We warrant and represent that we conceived said invention ourselves, that no one other than us is a joint inventor of said invention, and that neither we nor any of us have assigned or agreed to assign any rights in said invention or said application to anyone other than said assignee or a predecessor in interest to said assignee.

NOW, THEREFORE, in consideration of one dollar and other good and valuable consideration, the receipt of which is hereby acknowledged, we hereby assign to said assignee, its successors and assigns, the entire worldwide right, title, and interest in and to said invention, said application, and any Letters Patent which may be granted for said invention, said application, and any and all divisions, continuations, continuations-in-part, reissues, reexamination certificates, substitutes, and extensions of said application (each of which is included herein as a part of "said application"), including but not limited to all our United States and other national rights to said invention and said

> **PATENT** REEL: 012646 FRAME: 0028

application and all our rights under the Paris Convention for the Protection of Industrial Property and all other applicable treaties or laws in respect to said invention and said application.

We hereby authorize and request the United States Commissioner of Patents and Trademarks to issue any Letters Patent which may be granted for said invention or upon said application unto said assignee, its successors and assigns, in accordance with this assignment.

We hereby authorize said assignee to apply for patents on said invention in foreign countries, claiming the filing date of said application under the provisions of the Paris Convention for the Protection of Industrial Property and all other applicable treaties and laws, and we further agree to execute any and all documents that may be required or desired by said assignee in order that said assignee may apply for Letters Patent on said invention in foreign countries in our or its name.

We hereby agree to promptly communicate to said assignee or its representatives any facts known to us respecting said invention or said application; to testify in any legal proceeding relating thereto; to sign all lawful papers, including but not limited to all divisional, continuing, continuing-in-part, reissue, substitute, and extension applications, all rightful oaths or declarations, and documents confirming or substituting for this assignment.

Signed at Ployle Will this	25 PANC, in the County of KONKAN and State of 315+ day of DOCPHOLO 2001. Charles E. Thorn
	Charles E. Thorn
STATE OF TOUNTY OF	1691) SS.
is subscribed to the for	Charles E. Thorn personally known to me to be the same person whose name regoing instrument, appeared before me this day in person and acknowledged and delivered the said instrument as his free and voluntary act and deed for herein set forth.
Given under my hand	and notarial seal this 3 (St day of December 2001.
	Notary Public
(SEAL)	My commission expires 6/11/2005

Signed, at Commerce Bank, in the Country of Cean and State of Musery, this 7th day of January, 2002 Frank Polakovic
STATE OF PERSON) SS. COUNTY OF DEBUT)
I, Charles H. Muzzillo a Notary Public in and for the County and State aforesaid, do hereby certify that Frank Polakovic personally known to me to be the same person whose name is subscribed to the foregoing instrument, appeared before me this day in person and acknowledged that he signed, sealed and delivered the said instrument as his free and voluntary act and deed for the uses and purposes therein set forth.
Given under my hand and notarial seal this

(SEAL)

My commission expires (0/5/00)

Signed at,	this day of	, in the	County, 200	of	_ and	State of
		Cha	arles A. M	le ar Iosolf	Mo	sol/
STATE OF COUNTY OF	Florion) Palm Beach)					
do hereby cert name is subso acknowledged	, a Nota ify that Charles A. Mosolf per cribed to the foregoing instrurthat he signed, sealed and delive uses and purposes therein set for the control of th	sonally kno nent, appea ered the said	wn to me ired befor	e to be the sar re me this da	ne perse y in pe	on whose erson and
Given under m	y hand and notarial seal this	So	of January Public	Vala		
(SEAL)	My com	mission exp	oires sign	Notary Public My comm. exp	J. WADDIC c. State of pires March 1 CC918783	Florida

RECORDED: 02/21/2002