1999 ECS Annual Report
A Year of Change

Readers of *Interface*, the Society's membership magazine, will no doubt be aware of the changes ECS has undergone in recent years, some of them dramatic. Despite all the changes to the organization, and in the scientific community ECS serves, the Society's core objectives have remained the same—

- to advance the theory and practice of electrochemical and solid-state science and technology,
- to encourage research and the dissemination of knowledge in these fields, and
- to promote the education of fundamental and applied scientists and engineers in these fields.

In this report, readers will find information about the many changes of the past year—new initiatives that were introduced as well as those projects that reached their goals. Although change has occurred, each new project or revised program was rooted in the objectives and mission of the Society.

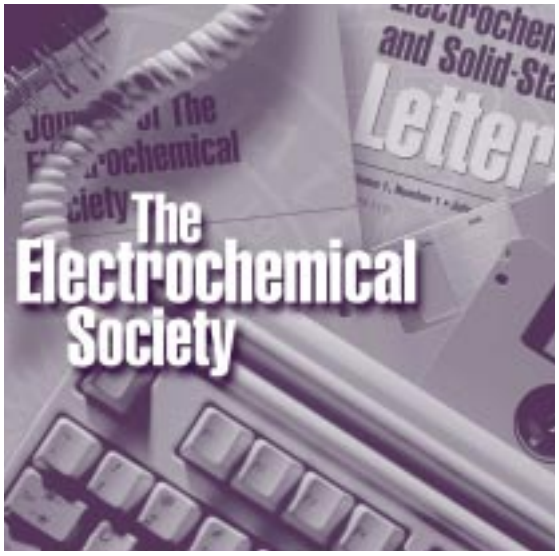
A New Home—*It was a year in coming, but the Society headquarters moved to a new site. Located in Pennington, New Jersey (just up the street from the former ECS building), 65 South Main Street is a complex of four buildings on 3.5 acres of land. The building that now houses the Society headquarters offers more space for the staff, a better working environment, and room for growth.*

The Electrochemical Society is, first and foremost, a professional membership organization with a rich heritage and a long-standing commitment to serve its members. It is also an inclusive organization, which means it actively encourages the community of scientists and engineers—from all disciplines, backgrounds, and countries—to participate in the activities of the Society. Finally, the Society is focused on its distinctive competence, which is to disseminate relevant, timely, and accessible scientific information to its constituents throughout the world. These are the things that have led to the sustained growth and vitality of the Society. They are demonstrated in the success of ECS programs and activities, presented here in the 1999 Annual Report.

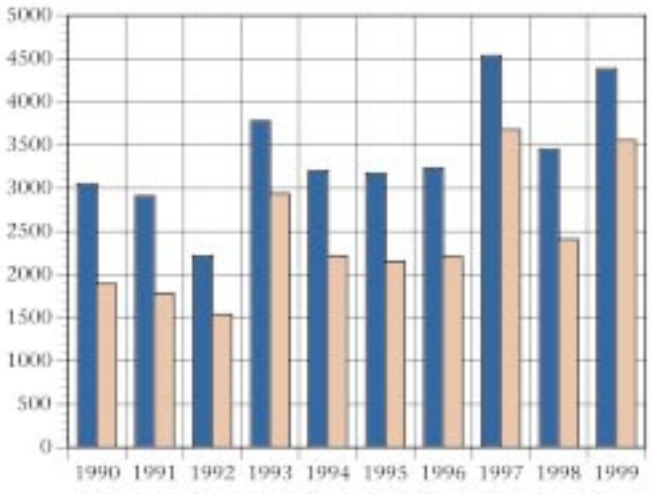
In a year marked by growth, perhaps the most important was the move to a new headquarters building. The complex at 65 South Main Street, in Pennington, New Jersey, was purchased in late 1998, and the move was accomplished in December 1999. The complex is only two blocks away from the former offices, but the move puts the Society business operations further away from what is becoming a busy retail district. The new location provides better working conditions for the staff, allows for expansion, and best of all, enables the Society to better serve its constituents.

A new project, begun in 1998, was the development of the Society's first CD-ROM. The Society partnered with the American Institute of Physics (AIP) to produce this disc of the ECS journals, the *Journal of The Electrochemical Society (Journal)* and *Electrochemical and Solid-State Letters (Letters)*. In a continuation of its electronic publishing initiatives, the Society also began publishing the *Journal* online. With a record number of published technical pages (4,690 in the *Journal* and 658 in *Letters*) online (and in print), Society members and subscribers had a vast electronic content database to help them in their work. The *Journal* recorded its highest impact factor ever (an ISI impact factor of 2.110), no small feat in this era of unprecedented growth in the number of scientific journals. The leadership of the ECS journals continued under Paul A. Kohl, of the Georgia Institute of Technology, who was renewed as Editor for a second five-year term at the end of 1999.

The Society's meeting program continued to grow, with 1999 recording the second highest number of meeting attendees in a single year, less than 200 shy of



Electronic Publishing—*ECS continued its electronic publishing initiatives with the ECS journals on CD-ROM. The Society's first CD includes all 1999 issues of the* Journal of The Electrochemical Society *and* Electrochemical and Solid-State Letters. *Also included were all issues of the premier volume of* Letters, *from 1998. In addition, the* Journal *was offered online beginning with the January 1999 issue.*



***ECS Meetings**—Paper submission and attendance. (■ Attendance and ■ Papers)*

Table I. ECS Membership Statistics

(As of October 1, 1999)

ECS Membership by Class

Category	1995	1996	1997	1998	1999	1999/1998 % Change
Active	4,804	4,952	5,148	5,327	5,183	-2.7
Member Reps	81	93	83	76	75	-1.3
Life	59	58	58	59	56	-5.1
Emeritus	201	203	220	222	233	5.0
Honorary	27	28	27	27	20	0.0
Subtotal Active in Good Standing	5,172	5,334	5,536	5,711	5,574	-2.4
Delinquent	700	662	642	680	874	28.5
Total Active on Record	5,872	5,996	6,178	6,391	6,448	0.9
Students	799	865	887	860	838	-2.6
Delinquent	217	218	256	283	265	-6.4
Total Students	1,016	1,083	1,143	1,143	1,103	-3.5
Total Individual Members	6,888	7,079	7,321	7,534	7,551	0.2

ECS Membership by Sections

Section	1995	1996	1997	1998	1999	1999/1998 % Change
Canadian	188	194	248	219	212	-3.3
Chicago	179	210	183	172	183	6.4
Cincinnati	45	40	46	66	59	-10.6
Cleveland	108	111	112	114	105	-7.9
Detroit	91	98	91	90	98	8.9
European	750	813	891	1,076	985	-8.5
Georgia	143	157	162	160	147	-8.1
Israel			30	42	37	-11.9
Japan	455	514	575	602	597	-0.8
Korea				145	167	15.2
Metropolitan New York	413	401	381	356	340	-4.5
Midland	19	18	20	22	21	-4.5
National Capital	197	194	192	215	218	1.4
New England	329	323	337	327	356	8.9
Pacific Northwest	113	109	100	97	125	28.9
Philadelphia	161	172	159	136	140	2.9
Pittsburgh	96	90	86	86	87	1.2
San Francisco (ES&T)	148	138	153	160	156	-2.5
San Francisco (SS&T)	381	362	347	337	286	-15.1
South Texas	184	192	209	188	173	-8.0
Southern Wisconsin	64	62	56	54	51	-5.6
Twin Cities	98	98	98	102	105	2.9
Non-Section	1,809	1,903	1,947	1,805	1764	-2.3
Subtotal All classes (current)	5,971	6,199	6,423	6,571	6,412	-2.4
Delinquents (Active and Student)	917	880	898	963	1,139	18.3
Total	6,888	7,079	7,321	7,534	7,551	0.2

the previous high set in 1997, which included the Paris meeting. Continuing a rich history and strong tradition, the Society visited Seattle, Washington and Honolulu, Hawaii.

In addition to the impressive list of Web site features, ECS continued to make advances in online services by expanding the electronic meeting abstract submission software, with a record 85% of all meeting presenters submitting their abstracts electronically. Society meetings attract approximately an equal number of members and nonmembers. This blend of people, and the expanding list of topical symposia, give attendees a rare opportunity to exchange ideas and interact with colleagues from diverse backgrounds. It is one of the unique characteristics of ECS meetings.

After a nine-year absence, the Society returned to Seattle—home of the latte—for its spring 1999 meeting. The meeting opened with a Plenary Lecture by Dr. Alan G. Miller, of the Boeing Co., who included a short speeded-up video on the making of a Boeing 777. The meeting attracted 1,477 attendees and 1,145 technical presentations in 33 different symposia.

The fall 1999 meeting in Honolulu was the third joint international meeting between The Electrochemical Society, The Electrochemical Society of Japan, and the Japan Society of Applied Physics. Honolulu was again a popular choice, as evidenced by the 2,906 attendees choosing from among 2,410 technical presentations in 43 separate symposia. Dr. Kenichi Honda, of the Tokyo Institute of Polytechnics, delivered the Plenary Lecture on recent progress in photoelectrochemistry. Aside from the excellent technical program and the beach views, the highlight of the meeting was the luau at the end of the week, where over 650 participants enjoyed the festivities on the lagoon green.

Other publications in the Society's program grew in 1999. The Society continued its joint publication agreement with the IEEE Electron Devices Society for *Letters*. This rapid-publication, electronic journal, launched in 1998, the first in its field, attracted increasing numbers of submissions every month. *Interface*, the Society's quarterly members magazine, entered a new phase under the editorship of Krishnan Rajeshwar, of the University of Texas at Arlington.

The monograph series saw substantial activity in the year, with three manuscripts delivered to John A. Wiley and Sons, with whom the Society sponsors a series of books. The volumes were the long-awaited *Uhlig's Corrosion Handbook*, 2nd edition, edited by R. W. Revie; *Modern Electroplating*, 4th edition, edited by M. Paunovic and M. Schlesinger; and *Atmospheric Corrosion*, written by T. Graedel and C. Leygraf. The proceedings volume series added new titles to their lists. The Society will have published 42 volumes for 1999 in cooperation with its Divisions and Groups.

Society members remained a vital force and ECS continued to meet its commitment to providing an excellent benefits package. For the sixth year, there was NO increase in membership dues; at the same time, the benefits package grew to include online access to the *Journal* and the option of receiving a CD-ROM of both technical journals instead of paper.

Changes were made to streamline the ECS awards program, and to improve the level of recognition for the award recipients. In 1999, ECS provided $25,000 in cash prizes to the various recipients of the Society, Division, and the Local Section Awards. Additionally, the Society Summer Fellowships provided $27,000 to students to pursue their work during the summer months.

The Society's thirteen Divisions and Groups, through their volunteer committees and members, continued to develop and sponsor symposia, proceedings volumes, major awards, student travel grants, and awarded student memberships.

The Society's financial position remains strong. Table II presents a breakdown of the 1999 revenue and expenses, which resulted in an increase in net assets from operating activities of $336,111. The Society, through the diligent oversight of its officers and staff, carefully managed its resources and expenses. This, coupled with excellent meeting attendance and sales from publications, allowed the Society to continue to support its current programs and activities, and to provide a sound base for future initiatives.

The real strength of the Society lies in its people. Through the work of its volunteers, its Divisions and Groups, and staff, ECS continues to be a major presence in the electrochemical and solid-state arenas. ■

Aloha to Hawaii— *ECS returned to Hawaii for its fall meeting, for a joint international meeting, sponsored with The Electrochemical Society of Japan, and with the technical co-sponsorship of the Japan Society of Applied Physics. The close of the meeting brought over 600 to the traditional Hawaiin luau. Flanked by torchbearers, and dancers in front, are (from left to right), Shigeru Yamauchi, President of The Electrochemical Society of Japan; Mizue Yamauchi; ECS President Dale Hall; Pam Hall; and Nancy Hall.*

Awards Program Keeps Growing—*A new award was added to the already impressive ECS list. The J. B. Wagner, Jr. Young Investigator Award, sponsored by the ECS High Temperature Materials Division, was presented for the first time to Suzanne Mohney (left) by Prof. Wagner himself at the Hawaii meeting.*

1999 Award Winners

Olin Palladium Award .....John B. Goodenough
Solid State Science & Technology Award .....Isamu Akasaki
Carl Wagner Award .....Charles R. Martin
Honorary Membership.....Barry Miller
Fellows.....Eric Brooman, Stanley Bruckenstein, Kathryn Bullock, Shimshon Gottesfeld, Yue Kuo, Dieter Landolt, Jerzy Ruzyllo, Norio Sato, Ralph E. White, and William M. Yen
Battery Division Research Award .....Claude Delmas
Battery Division Technology Award .....Akira Yoshino
Corrosion Division H. H. Uhlig Award.....Koji Hashimoto
Dielectric Science & Technology Division
Thomas D. Callinan Award .....Ajeet Rohatgi
Electrodeposition Division Research Award .....René Winand
Electronics Division Award.....Ulrich Gösele
Energy Technology Division Research Award .....Alvin W. Czanderna
High Temperature Materials Division
J. B. Wagner, Jr. Young Investigators Award .....Suzanne Mohney
Industrial Electrolysis and Electrochemical Engineering Division
New Electrochemical Technology (NET)
Award .....Asahi Glass Company, Ltd.
Physical Electrochemistry Division
David C. Grahame Award .....Philip N. Ross, Jr.
Physical Electrochemistry Division
Max Bredig Award .....Yasuhiko Ito

TABLE III. ECS Consolidated Balance Sheet

(Years Ended December 31, 1999 and 1998)

Assets

	1999	1998
Current Assets:		
Cash	$99,939	$194,060
Accounts Receivable	130,916	127,052
Inventories	17,158	5,955
Prepaid expenses, deposits, and other assets	157,714	120,182
Investments (note 2):		
Marketable Securities	6,724,871	6,161,243
Real Estate	1,437,733	1,437,733
Land	381,377	381,377
Buildings	402,210	414,896
Total Assets	$9,351,918	$8,842,498

Liabilities and Net Assets

	1999	1998
Current Liabilities:		
Accounts payable and accrued expenses	$142,423	$58,297
Deferred revenue	1,056,177	946,067
Security deposits	27,047	35,491
Deferred compensation	79,804	92,287
Total Liabilities	1,305,451	1,132,142
Net Assets:		
Unrestricted:		
General operating	1,159,758	950,998
Investment in land and buildings	783,587	796,273
Custodial	4,963,391	4,855,259
Designated	318,621	310,021
Designated Earnings	62,560	51,568
Local Sections	101,255	105,348
Total Unrestricted	7,389,172	7,069,467
Temporarily restricted	287,095	270,689
Permanently restricted	370,200	370,200
Total Net Assets	8,046,467	7,710,356
Total Liabilities & Net Assets	$9,351,918	$8,842,498

Notes to Financial Statements

1—Summary of Significant Accounting Policies

The consolidated financial statements include the accounts of The Electrochemical Society, Inc. and its Divisions, Groups and Local Sections, and its wholly-owned subsidiary, ECS Holdings LLC. All intercompany balances and transactions have been eliminated in consolidation.

These consolidated financial statements, which are presented on the accrual basis of accounting, have been prepared to focus on The Electrochemical Society, Inc. and subsidiary (the Society) as a whole and to present balances and transactions according to the existence or absence of donor-imposed restrictions. Accordingly, net assets and changes therein are classified as follows: Unrestricted net assets—net assets not subject to donor-imposed stipulations; Temporarily restricted net assets—net assets subject to donor-imposed stipulations that will be met by actions of the Society and/or by the passage of time; Permanently restricted net assets—net assets subject to donor-imposed stipulations that they be maintained permanently by the Society. Generally, the donors permit the Society to use all or part of the income earned on related investments for general or specific purposes.

2—Investments

Investments are carried at fair value and are generally held until maturity. Investments in real estate are carried at cost.

Investment income and realized and unrealized net gains on investments of permanently restricted net assets are reported as follows:

- as increases in temporarily restricted net assets if the terms of the gift impose restrictions on the use of the income and/or net gains;
- as increases in unrestricted net assets in all other cases.

Investments, other than real estate, are stated at fair value, as determined by quoted market prices provided by investment managers, and consist of the following as of December 31, 1999:

Short-term investments	$964,761
Stock Mutual Funds	2,522,921
Certificates of deposits	1,714,369
U.S. Government Agency obligations	2,196
Corporate bonds	1,485,383
Corporate stocks	187
Accrued interest receivable	35,054
Real Estate (ECS Holdings LLC)	1,437,733
Total	**$8,162,604**

3—ECS Holdings LLC

ECS Holdings LLC leases office space to various tenants under operating lease arrangements expiring through 2009. (Rental Income under the aforementioned leases totaled $343,515 for the year ended December 31, 1999).

4—Independent Accounting Firm

The Society engaged the services of the independent accounting firm, KPMG LLP, to conduct the 1999 annual audit. In the opinion of KPMG LLP, the Society's financial statements present fairly, in all material respects, the financial position of The Electrochemical Society, Inc. and subsidiary as of December 31, 1999 and 1998, and the changes in their net assets and their cash flows for the years then ended in conformity with generally accepted accounting principles.

ECS Staff (as of May 31, 2000)

Roque J. Calvo	**Executive Director**
Keri Ahern	**Marketing & Development Assistant**
Barbara J. Baggott	**ECS Affiliates Coordinator**
Artie Ann Berry	**Publications Assistant**
Joan Bratsko	**Membership Assistant**
Elizabeth Brennfleck	**Administrative Assistant**
Anne Clementson	**Publications Assistant**
Paul Cooper	**Journals Production Manager**
Adam Flick	**Information Systems Administrator**
Andrea L. Guenzel	**Publications Clerk**
Susan M. Liggett	**Accounting Clerk**
Patricia T. Lorynski	**Publications Clerk**
Terry McCloughan	**Office Assistant**
Carolyn R. Pylypiak	**Director of Finance**
Ellen S. Popkin	**Publications Production Coordinator**
Stephen L. Priori	**Meetings and Programs Assistant**
Brian E. Rounsavill	**Director of Meetings, Exhibits, and Online Services**
Ellen Tiano	**Director of Membership**
Mary E. Yess	**Director of Publications**

TABLE II. Consolidated Statements of Activities

(Years ended December 31, 1999 and 1998)

	1999			1998		
	Unrestricted Funds	Restricted Funds	Total Funds	Unrestricted Funds	Restricted Funds	Total Funds
Revenues:						
Publications	$1,928,365	0	$1,928,365	$1,936,221	0	1,936,221
Membership	595,405	0	595,405	597,570	0	597,570
Society meetings and activities	941,621	0	941,621	745,664	0	745,664
Interest and dividend income	290,350	36,389	326,739	426,719	39,148	465,867
Net realized gain on sales of investments	322,498	0	322,498	0	0	0
Contributions and grants	76,078	0	76,078	69,776	0	69,776
Rental income	343,515	0	343,515	0	0	0
Other revenues	53,666	0	53,666	43,925	0	43,925
Total Revenues	4,551,498	36,389	4,587,887	3,819,875	39,148	3,859,023
Net assets released from restrictions for awards	19,983	(19,983)	0	40,174	(40,174)	0
Total Revenues and Other Support	4,571,481	16,406	4,587,887	3,860,049	(1,026)	3,859,023
Expenses:						
Program Services:						
Publications	1,795,047	0	1,795,047	1,747,701	0	1,747,701
Membership	116,252	0	116,252	103,155	0	103,155
Society meetings and activities	734,318	0	734,318	617,495	0	617,495
Awards, fellowships, and grants	260,076	0	260,076	244,595	0	244,595
Total Program Services	2,905,693	0	2,905,693	2,712,946	0	2,712,946
Supporting Services:						
General and Administrative:	647,244	0	647,244	562,702	0	562,702
Rental Operations:	371,501	0	371,501	0	0	0
Total Expenses	3,924,438	0	3,924,438	3,275,648	0	3,275,648
Increase (decrease) in net assets from operations	647,043	16,406	663,449	584,401	(1,026)	583,375
Nonoperating gain (loss):						
Net appreciation (depreciation) on investments	(327,338)	0	(327,338)	271,495	0	271,495
Increase (decrease) in net assets	319,705	16,406	336,111	855,896	(1,026)	854,870
Net assets as of beginning of year	7,069,467	640,889	7,710,356	6,213,571	641,915	6,855,486
Net assets as of end of year	$7,389,172	657,295	8,046,467	$7,069,467	640,889	7,710,356

ECS Affiliates

ADInstruments
Advance Research Chemicals, Inc.
Akrion
AIChE
Arbin Instruments
Atotech USA, Inc.
Ballard Power Systems, Inc.
BBA Nonwovens
BCO Technologies
BCS Technology, Inc.
Bede Scientific Inc.
Bioanalytical Systems, Inc.
(BAS)Bio-Logic
M. Braun, Inc.
Brinkmann Instruments, Inc.
Brookhaven National Lab.
Cabort Performance Co.
Canon, Inc.
Center for Tribology
Central Electrochemical Res. Inst.
Charles Evans & Associates
Chemat Technology, Inc.
Comsat Laboratories
Comsol, Inc.
CSIRO Div. of Mineral Products
Cypress Systems, Inc.
Daiso Co., Ltd.
De Nora S.p.A.
Digital Instruments
Dow Chemical Co.
Du Pont CR&D Engineering Labs
Duracell Worldwide Tech. Ctr.
Eberbach Corp.
ECO Energy Conversion
Elchema
ElectroChem, Inc.
Electronic Visions, Inc.
Electrosynthesis Co., Inc.
Elsevier Science
Eltech Systems Corp.
Ernest B. Yeager Ctr.
E-TEK, Inc.
Eveready Battery Co., Inc.
Faraday Technology, Inc.
FMC Corporation
Fujitsu Limited
Gamry Instruments
General Electric Corp. R&D
General Motors Research Labs
Giner, Inc.
Hohsen Corporation
Hokuto Denko Corporation
Honeywell, Inc.
IBM Corporation
ICI Chemicals & Polymers Ltd.
InDEC b.v.
Innovac Corporation
Institution of Electrical Engineers
International Fuel Cells
Int'l. Lead Zinc Research Org., Inc.
Japan Storage Battery Co., Ltd.
Jet Propulsion Lab.
Johnson Controls, Inc.
Karl Suss Munich
Kerr-McGee Chemical Corporation
KLA-Tencor Corporation
Kluwer Academic
Koslow Scientific
Lam Research
Lawrence Berkeley National Lab.
Leclanche SA
Los Alamos National Laboratory
Lucent Technologies
Lynntech, Inc.
Maccor, Inc.
Marketech International
Materials & Systems Research
Materials Research Society
Matsushita Battery Industrial Co. Ltd.
Max-Planck-Institut
Maxtek, Inc.
Medtronic Inc.
Mine Safety Appliances Company
Mitsubishi Electric Corp.
Molecular Imaging
Nacional de Grafite LTDA
NBT GmbH
NEC Corporation Central Res. Labs
Nortel Networks
NTT EL Laboratories
OC Technologies, LLC
Occidental Chemical Corp.
Olin Chlor Alkali Products Division
Onstream B.V.
Onyx Optics, Inc.
Osram Sylvania, Inc.
PCI Chemicals Canada, Inc.
PerkinElmer Instruments
Permelec Electrode Ltd.
Philips Research, Inc.
Physical Sciences, Inc.
Pine Instruments
PPG Industries, Inc.
Praxair Specialty Ceramics
Precious Plate Incorporated
Quallion, LLC
Radiant Technologies, Inc.
Radiometer Analytical
Rayovac Corp.
Royal Society of Chemistry
Rutgers University
Saft Research & Development Ctr.
Sandia National Labs
Schumacher
Scribner Associates, Inc.
SelfCHARGE, Inc.
Semiconbay.com
Sensor Products, Inc.
Alexander Shekhtman
Shipley Company
Siemens Aktiengesellschaft
Silvaco International
SOITEC, USA, Inc.
Solartron
SRI International
Sumitomo Metal Industries, Ltd
Superconductive Components, Inc.
Superior Graphite Co.
TDK Corp., R&D Center
Technic Inc.
3 M Company
Timcal AG Graphite and Tech.
Tokuyama Corp.
Toshiba R & D Center
Toyota Central R&D Lab
C. Uyemura & Co. Ltd.
Vacuum Atmospheres Company
Vacuum Engr. & Materials Co., Inc.
Valence Technology
Varian Associates
Wacker Siltronic AG
John Wiley & Sons Ltd.
Wilson Greatbatch Ltd.
J. A. Woolam Co., Inc.
Yuasa Corporation