

VOL. XXVIII

MAY, 1972

NUMBER 5

Presented to

### Charles H. Townes

on the occasion of his

#### Remsen Memorial Lecture

sponsored by The Maryland Section of the American Chemical Society

in/memory/of

#### Ira Remsen

Teacher, Investigator, Author, Administrator

May 24,1972

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THE CHESAPEAKE CHEMIST



#### THE CHESAPEAKE CHEMIST

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#### EDITORIAL STAFF

William G. Galetto......Editor McCormick & Co.. 204 Wight Ave. Hunt Valley, Md. 21031 Phone: 666-3155

Allen Bednarczyk....Assistant Editor McCormick & Co. Hunt Valley, Md. 21031

M. J. Albinak....Contributing Editor Essex Community College Baltimore, Md.

David Gordon....Contributing Editor U. S. Food and Drug Adm. Baltimore, Md.

E. M. Glocker....Contributing Editor W. R. Grace and Company Clarksville, Md.

M. F. Switzer....Contributing Editor The Johns Hopkins University Baltimore, Md.

#### **BUSINESS STAFF**

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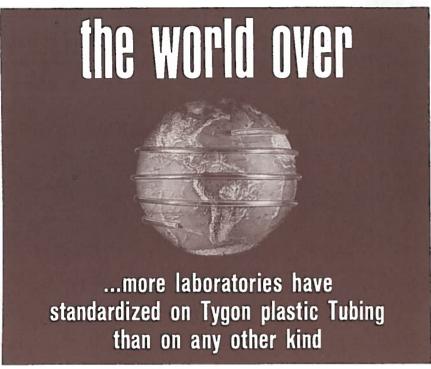
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#### TWENTY-SEVENTH REMSEN LECTURE

#### DATE AND TIME:

Shaffer Hall, Homewood Campus, The Johns Hopkins University.
Wednesday, May 24, 1972 at 8:30 P.M.

#### SPEAKER:

Dr. Charles H. Townes Professor Department of Physics, University of California, Berkeley, California.

#### SUBJECT:

"The Molecular Components of Interstellar Space"

#### COCKTAILS AND DINNER:

J. H. U. Faculty Club Cocktails 6:00 P.M. Dinner 6:30 P.M.

Reservations must be made with:

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bу

May 19, 1972



DR. CHARLES H. TOWNES

#### SOCIAL HOUR:

Refreshments will be served in the Clipper Room, Shriver Hall, after the lecture. Everyone is welcome.

#### PARKING:

Free parking is available in the lot adjacent to Shriver Hall.

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Advance Reservations

Must Be Made

#### THE REMSEN MEMORIAL LECTURE

#### DR. CHARLES H. TOWNES

Dr. Charles H. Townes, university professor at the University of California since 1967, received the Nobel Prize for his role in the invention of the Maser and Laser. Internationally known for his research on the interaction of electromagnetic waves and matter and also as teacher and government advisor, he is affiliated with the Department of Physics on the Berkeley Campus, conducting research in astrophysics.

Active as a consultant with many organizations, Dr. Townes is currently chairman of the Space Science Board at the National Academy of Sciences, a Council Member of the National Academy of Sciences, and Chairman of the Science Advisory Committee of General Motors.

Born July 28, 1915 in Greenville, South Carolina, Dr. Townes graduated with highest honors from Furman University in 1935. He received his Bachelor of Science degree in physics and a Bachelor of Arts degree in modern languages. He completed a Master's degree at Duke University, and in 1939 received the Ph.D. degree at the California Institute of Technology.

He is the recipient of numerous awards and honors including membership in the National Academy of Sciences, the Academy's Comstock Prize, and the John J. Carty Medal, the Research Corporation Annual Award, the Remford Premium of the American Academy of Arts and Sciences, the Medal of Honor of the Institute of Electrical and Electronics Engineers, NASA's Distinguished Public Service Medal, the Michaelson-Morley Award, the Wilhelm Exner Award, as well as honorary degrees from twenty colleges and universities.

Dr. Townes is a past President of the American Physical Society and was a member of its council and presently is a trustee at the Carnegie Institution of Washington, a trustee at the Woods Hole Oceanographic Institution, and a director of the Perkin

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Elmer Corporation.

Dr. Townes and his wife, former Frances H. Brown, have four daughters: Linda, Ellen, Carla, and Hollie.

#### The Molecular Components of Interstellar Space

Within the last three years about 20 molecules have been found in interstellar clouds, including many organic species. Four diatomic radicals were previously known. The spectra of these molecules, particularly in the microwave region, give much information about the conditions of interstellar clouds and dust, but also raise many interesting problems about their creation and excitation. Present information on molecules in interstellar regions and its interpretation will be reviewed.

#### THE REMSEN MEMORIAL LECTURE

The Maryland Section of the American Chemical Society inaugurated in May 1946 a series of annual lectures in honor of Ira Remsen, first Professor of Chemistry and second President of the Johns Hopkins University. The First Remsen Memorial Lecture was part of the centennial celebration of Remsen's birth. It was the intention of the Maryland Section that Remsen Memorial Lecturers should be chemists of outstanding ability, as exemplified by Ira Remsen's long and devoted career as an exponent of the highest standards in teaching and research in chemistry.

The Remsen Memorial lecture delivered in May or June each year, is the highlight of the year's activity of the Maryland Section. The lecturer is chosen by a special committee which meets early in the year to consider possible candidates for the honor. A reception and dinner in honor of the recipient of the Award is held at the Johns Hopkins Club and is attended by officials of the Johns

Hopkins University, American Chemical Society, and many members of the Maryland Section. The lecturer is introduced by a distinguished colleague, and after his address, he is presented by the Chairman of the Maryland Section with the engraved Remsen Memorial scroll and an honorarium from the Maryland Section. An informal refreshment hour follows the meet-

Past Remsen Memorial Lecturers have been, in chronological order annually since 1946, Roger Adams, Samuel C. Lind, Elmer V. McCollum, Joel H. Hildebrand, Edward C Kendall, Hugh S. Taylor, W. Mansfield Clark, Edward L. Tatum, Vincent du Vigneaud, Willard F. Libby, Farrington Daniels, Melvin Calvin, Robert B. Woodward, Edward Teller, Henry Eyring, Herbert C. Brown. George Porter, Harold C. Urey, Paul D. Bartlett, James R. Arnold, Paul H. Emmett, Marshall W. Nirenberg, Har G. Khorana, Albert L. Lehninger, George S. Hammond and George C. Pimentel.

It was fitting that the Maryland Section should establish the Remsen Memorial Lecture as a recognition of American chemists whose attainments continue the distinguished pattern that Ira Remsen created. From the foregoing list of the eminent recipients, it is gratifyingly obvious that the high standards of the original Remsen Memorial Lecture Committee have been adhered to constantly. It is apparent that those chosen over the years have been among the outstanding leaders in American Chemistry.

#### CALL FOR PAPERS

14th ANNUAL EASTERN ANALYTICAL SYMPOSIUM

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MAY, 1972

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#### **EXECUTIVE COMMITTEE MINUTES**

Minutes of Joint Executive Committee Meeting, Maryland and Washington Sections, Monday, April 17, 1972, at W. R. Grace Research Center, Clarksville, Md.

#### Present:

Washington Section: E. Haenni, G. Irving, D. Venezky, F. Saalfeld, C. Gordon, N. Turner, J. Damico, R. Brady and J. Nicolson. Maryland Section: J. Kolbe, L. Weber, E. Silversmith, F. Gornick, H. Freimuth, Y. Caplan, J. Kaufman, T. Simmons, R. Kassel, E. Poziomek, D. Rosenblatt and K. Zeller.

Drs. Joyce Kaufman and Fred Saalfeld, Chairmen of the Maryland and Washington Sections, respectively, presided. The following topics of mutual interest were discussed.

#### 1. Program

Attendance at monthly dinner meetings averages only about 3% of total membership in both sections. Maryland has problems financing meetings; currently, the charge is \$5.25 to each person and the section contributes another \$1.00. These figures may be as high as the traffic will bear, but costs keep rising. It was suggested that the "open bar" is a needless expense, and the serving of beer at the end of a meeting (just before driving home) is a poor idea.

Washington has had some debates on ecology and population in addition to lectures. They face stiff competition from NIH, National Bureau of Standards, etc. when it comes to lectures.

#### Publications

Both sections are using photo offset processes for their monthly publications, resulting in substantial savings. Washington is having this done at a firm employing handicapped persons.

3. Member and Government Liaison
Washington has a Member Liaison
Committee that has conducted a series
of rap sessions with members over
lunch. Quite a few members expressed
an interest in having the section get
more involved in significant local
projects. The possibility that sec-

tions could provide experts to testify before government committees on scientific matters was discussed.

#### 4. Education

Washington is attempting to increase interest in science among inner-city minority students by (1) sponsoring an award at each university in the D.C. area, (2) sponsoring trips for inner-city high school students to nearby laboratories and (3) enabling students to work in government laboratories during their high school careers.

Maryland is operating a scholarship program for inner-city students, enabling 2 students to study to be chemical technicians.

#### 5. Professional Relations

Washington has been able to help some unemployed chemists through a sort of job listing service. Maryland is also contemplating ways to help its unemployed members.

Respectfully submitted Ernest F. Silversmith Secretary

These minutes are uncorrected, and are published for informational purposes only pending their acceptance at the next meeting of the Executive Committee.

#### COVER

Facsimile of the scroll to be presented to Dr. Charles H. Townes

The Editor and Staff of the Chesapeake Chemist thank all those who contributed to the Chemist during the past year, and wish all the members a pleasant summer.

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THE CHESAPEAKE CHEMIST

## WELCOME...

The following people have recently joined the Maryland Section of the American Chemical Society. The Local Section welcomes each one and invites each member to attend Local Section meetings and to participate in Local Section activities.

Frederick H. Batzold, J.H. Sch. Med., Baltimore, Md.

Robert Edward Chandler, McElderry St., Baltimore, Md.

IF YOU CHANGE YOUR AD-DRESS... Please do not notify the Editor of the Chesapeake Chemist, but send your new and old addresses to: The American Chemical Society, 1155 Sixteenth Street, N.W., Washington, D. C. 20036. The Maryland Section will then be notified.

MAY, 1972

Keith W. Clark, High Tor Hill, Columbia, Md.

Mrs. Rose Marie Clugh, Taylor Ave., Baltimore. Md.

Dr. Dakshinamurty Hejeebu, F.M.C. Corp., Baltimore, Md.

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There is enclosed \$ (\$7.25 per person) for dinner reservations for the following persons in my party:  Imperial crab Roast beef
Return by May 19, 1972. Due to space limitations, reservations will be accepted on a first come, first served basis. Please make checks payable to Maryland Section, ACS.
Name Phone

The Chesapeake Chemist University of Maryland 636 W. Lombard Street Baltimore, Maryland 21201

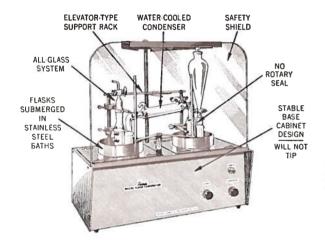
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