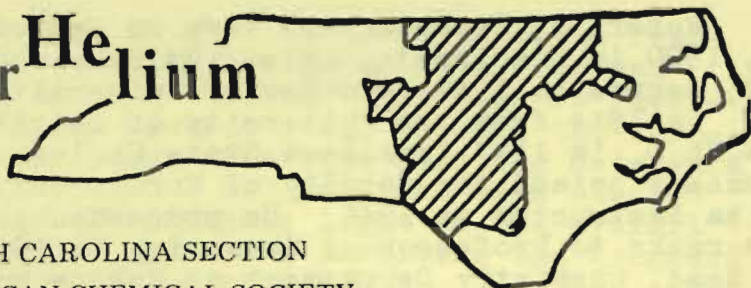


Tar Helium



NORTH CAROLINA SECTION
AMERICAN CHEMICAL SOCIETY

Vol. 7, No. 6 Raleigh, N.C. February, 1977

"THE HIGHLY REACTIVE ALLYLIC-TYPE ORGANOMETALLICS"

- Speaker: Dr. Robert A. Benkeser
 Purdue University
- Date: Wednesday, February 9, 1977
- Place: North Carolina Central University
 Durham, North Carolina
- *Time: 5:30 Happy Hour
 Washington Duke Motor Inn
 605 Chapel Hill St; Durham
- 6:30 Dinner (broiled chicken, \$5.25
 incl. tax & tip)
 Washington Duke Motor Inn
- 8:00 Lecture
 Hubbard Chem Bldg, Room 112
 North Carolina Central Univ.

*If you plan to attend the dinner, please make a reservation by Feb. 7 by contacting either:
Robert Izydore at 683-6351 or 683-6462 (NCCU)
William Switzer at 737-2945 or 737-2545 (NCSU)

Robert A. Benkeser was born on February 16, 1920 in Cincinnati, Ohio. He received his B.S. degree in 1942 from Xavier University, his M.S. in 1944 from the University of Detroit and his Ph.D. in 1947 from Iowa State College. Dr. Benkeser joined the faculty of Purdue University as an Instructor in 1946. He proceeded through the ranks to Professor of Chemistry in 1955 and to Head, Chemistry Department at Purdue University in 1974. Dr. Benkeser is a member of the American Chemical Society and the British Chemical Society, Sigma Xi and Phi Kappa Phi. He has received several awards including the F. S. Kipping Award of ACS and the Frank D. Martin Teaching Award. His research interests include new methods of synthesizing organo-silicon compounds; use of inorganic silicon chemicals as organic reagents; the reactions of benzylic and crotyl Grignard systems; selective reduction of organic compounds by Group II metals.

"THE HIGHLY REACTIVE ALLYLIC-TYPE ORGANOMETALLICS"

Organometallics in which the metal atom is bonded to an allylic carbon ($\text{>C}=\text{C}-\text{C}-\text{M}$) have an extremely high order of reactivity relative to their saturated counterparts. This makes them very useful in organic syntheses. Examples of this enhanced activity and synthetic usefulness will be given.

With the advent of NMR spectroscopy, it is now possible to deduce the structure of these organometallics. In many instances it is found they undergo reaction on the #3 carbon atom of the allylic system rather than on the #1 carbon to which the metal atom is attached. Examples will be given of this phenomenon and an explanation will be offered for the seemingly anomalous point of attack.

Finally it will be shown that the reactions between allylic organometallics and various ketones to yield carbinols is reversible. This reverse step, wherein the carbinol salts break down into starting materials (organometallic + ketone), has been studied and sheds considerable light on the overall mechanism of reactions involving the Grignard and organolithium reagents.

MARCH MEETING AT NCSU FACULTY CLUB

The March meeting of the North Carolina Section of the ACS will be on March 22 at the NCSU Faculty Club. The speaker will be Dr. Maurice Bursley of UNC-CH.

SHORT COURSE REMINDER

The North Carolina Section of the ACS is sponsoring a short course entitled: "Introduction to C-13 NMR Spectroscopy". Details of the course appeared in the January TARHELIUM. The course begins Feb. 3 and deadline for registration is January 28. For last minute details and registration, contact Dr. Forrest Getzen at NCSU. If you have suggestions for topics for future short courses pass these on to James Coke, Dept. Chemistry, UNC, Chapel Hill.

SCHOLARSHIP AWARD REMINDER

The Section is again awarding a scholarship for the coming summer. Details appeared in the last issue. The deadline for applications is March 1, 1977. Dr. David Yeowell of Burroughs Welcome is Chairman of the Scholarship Committee.

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