

33rd CHARLES S. BARRETT SILVER MEDAL PRESENTATION and AWARD LECTURE



Presented by the Rocky Mountain Chapter of ASM International

Award established in 1984 in recognition of Charles Barrett, a pioneer in the study of the structure of metals and the application of x-ray diffraction techniques.

Presented to those individuals whose contributions to the science of metallurgy most exemplify the efforts and career achievements made by Dr. Barrett.

Charles S. Barrett - Biography

- B.S. from South Dakota, 1924
- Ph.D. from the University of Chicago, 1928
- Professor of Metallurgy at Carnegie Institute of Technology, 1932 - 1946
- University of Chicago 1946-1971, until retirement. Worked with Prof. Cyril Stanley Smith
- **Moved to University of Denver in 1971 – active in teaching and research.**

- **Awards:**
 - **Fellow of ASM**
 - **Honorary ASM Member**
 - **Edward deMille Campbell Memorial lecturer**
 - **Albert Sauveur Distinguished Achievement Award**
 - **Acta Metallurgica Gold Medal**
 - **Fellow of AIME**
 - **Member, NAS**

He was the author and co-author of numerous papers and the book "Structure of Metals".

Structure of Metals Third Edition

McGraw-Hill Series in Materials Science and Engineering

Charles Barrett
and T.B. Massalski

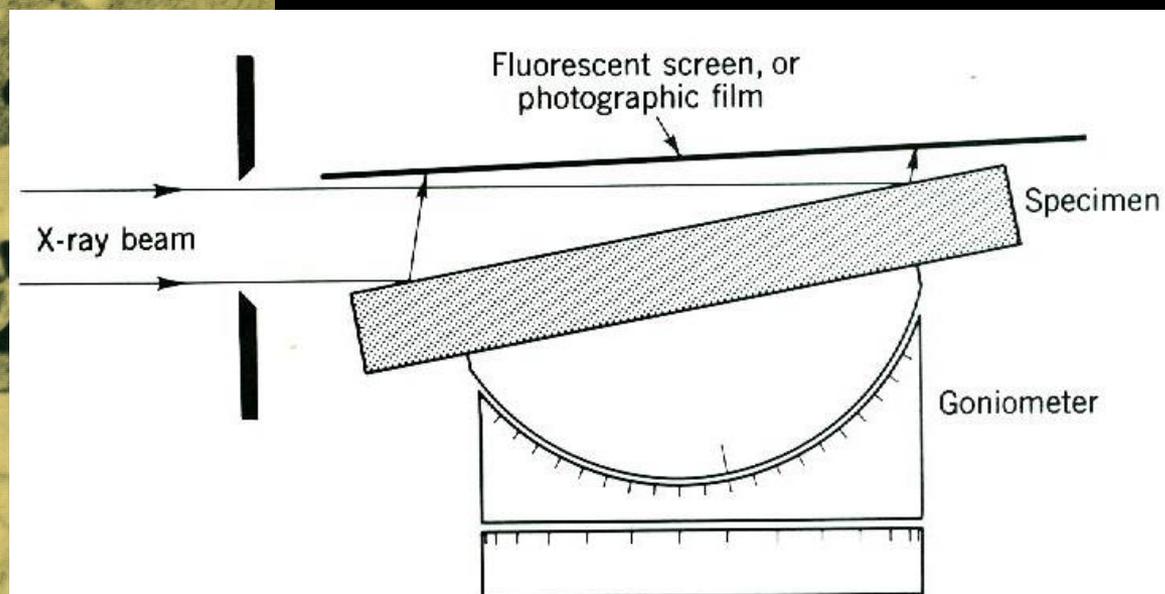
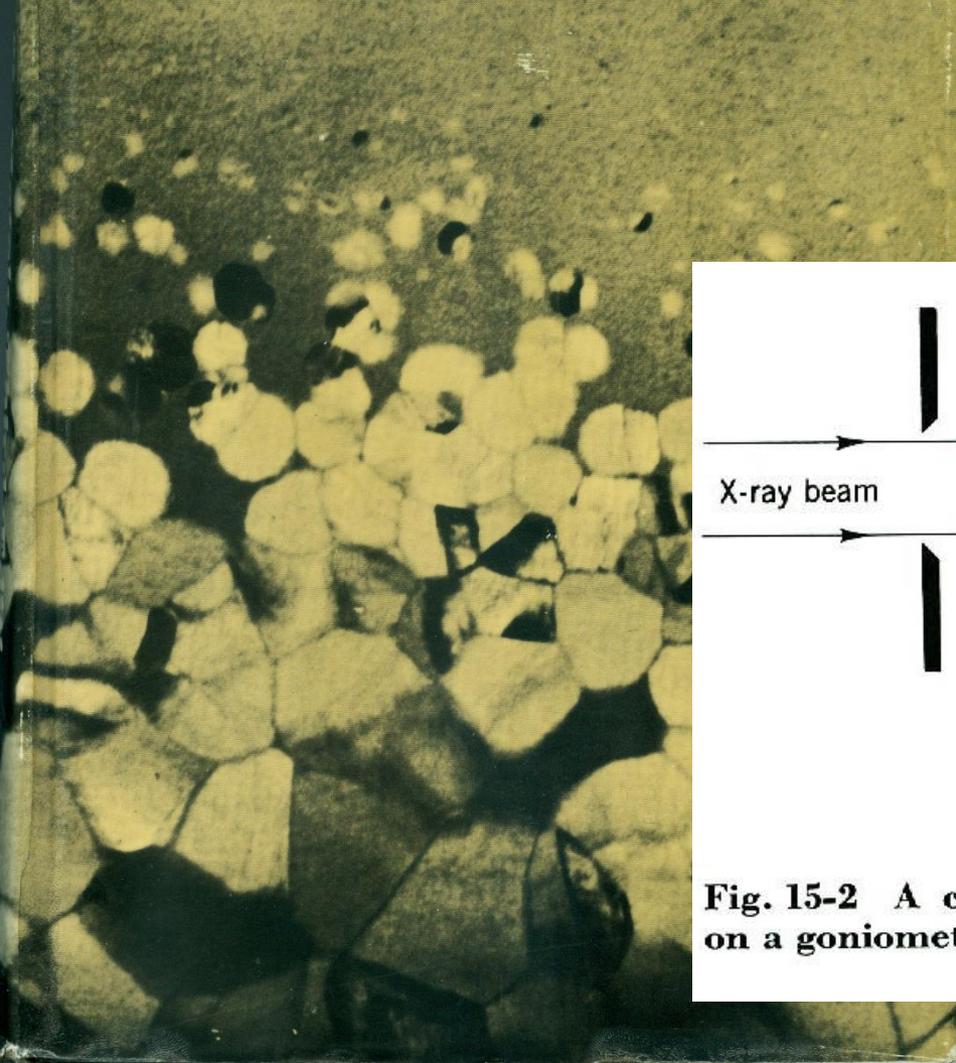
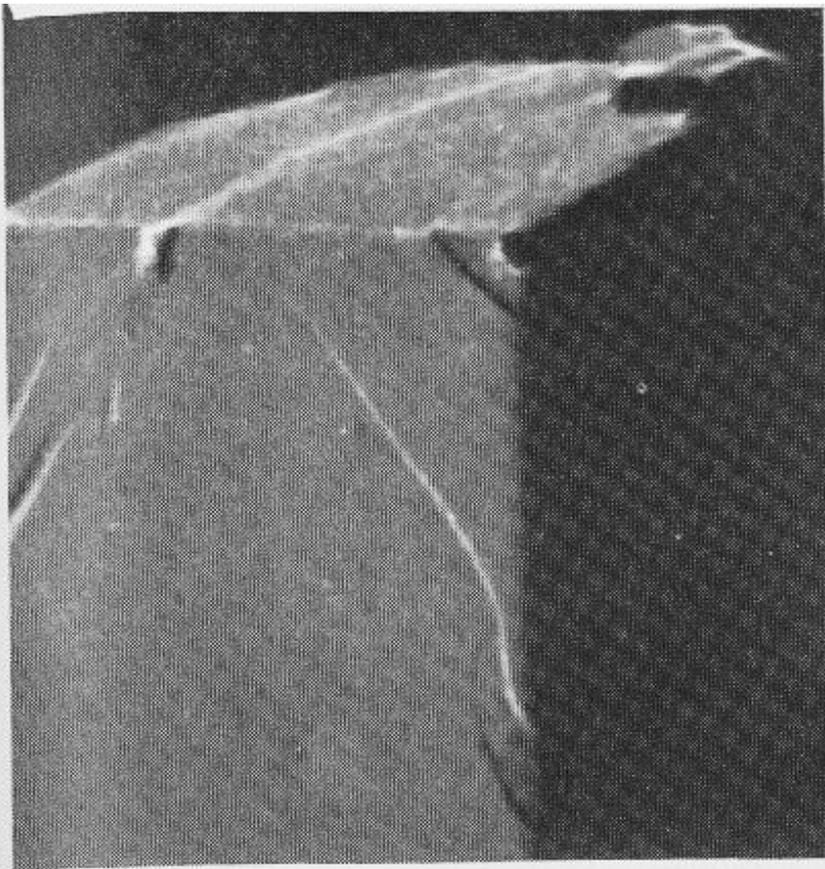
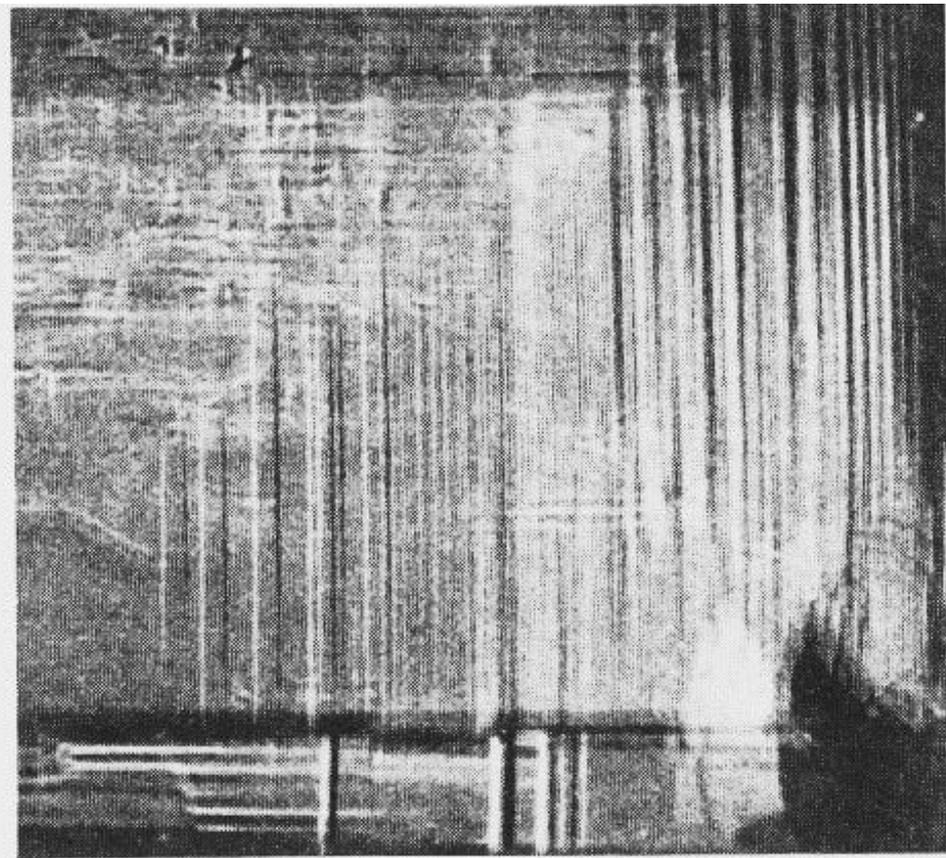


Fig. 15-2 A crystal (or polycrystalline specimen) mounted on a goniometer in position for Berg-Barrett photographs.



(a)



(b)

Fig. 15-3 X-ray topographs by the Berg-Barrett method. (a) Zirconium crystal with subboundaries, reflection from front and top faces. The crystal appeared visually to be a flawless block. Lantern-slide plate, $\times \sim 8$. (b) Crystal of V_3Si after cooling to $4.2^\circ K$. The cubic crystal of $A15$ structure has transformed to a tetragonal structure with $c/a = 1.0025$ and twin lamellae have appeared, tilted tenths of a degree from each other. Fine-grained x-ray film. $\times \sim 15$. (B. W. Batterman and C. S. Barrett.) (1964)

Past Recipients

Charles S. Barrett Silver Medal

Prof. Mel Bernstein, 1984
Dr. John Cahn, 1985
Prof. John P. Hirth, 1986
Prof. Oleg D. Sherby, 1987
Prof. Morris Cohen, 1988
Prof. T.M. Massalski, 1989
Prof. Morris Fine, 1990
Dr. Bhakta Rath, 1991
Prof. William C. Leslie, 1992
Prof. Robert E. Reed-Hill, 1993
Prof. William Nix, 1994
Prof. George E. Dieter, 1995
Dr. Norman A. Gjostein, 1996
Prof. George Krauss, 1997
Prof. John J. Jonas, 1998
Prof. George S. Ansell, 1999

Prof. Charles J. McMahon, Jr., 2000
Dr. Siegfried S. Hecker, 2001
Prof. Gareth Thomas, 2002
Prof. James C. Williams, 2003
Prof. Alan W. Pense 2004
Dr. Neil E. Paton, 2005
Dr. Stuart P. Keeler, 2006
Prof. Henry Petroski, 2007
Prof. J.W. (Bill) Morris, 2008
Dr. Alan I. Taub, 2009
Prof. Dennis W. Readey, 2010
Dr. Bruce Bramfitt, 2011
Dr. Alton Romig, 2012
Dean David B. Williams, 2013
Prof. Harry Bhadeshia, 2014
Prof. Robert Wagoner, 2015

