



# INVENTORY TO THE HERBERT C. BROWN PAPERS, 1928-2005

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Compiled by: Margaret S. Morris, 2008

Revised by: Elizabeth M. Wilkinson, July 2008, May 2012, December 2012

## **Descriptive Summary**

Creator Information Brown, Herbert C., 1912 –2004

**Title** Herbert C. Brown papers

**Collection Identifier** MSF 4

**Date Span** 1928-2005, predominant 1940s–1990s

**Abstract** Business and personal papers of Herbert C. Brown,

educator, chemist, and recipient of the 1979 Nobel Prize

for Chemistry

**Extent** 420 cubic feet (448 boxes)

**Finding Aid Author** Margaret S. Morris, 2006 – 2008; Processing of additional

materials and revisions made by Elizabeth Wilkinson,

2008, 2012

Languages English

**Repository** Virginia Kelly Karnes Archives and Special Collections

Research Center, Purdue University Libraries

## **Administrative Information**

**Location Information:** ASCR

Access Restrictions: Collection is open for research. The collection is stored

offsite; 48 hours notice is required to access the

collection. Some materials have been restricted due to

privacy and legal issues

**Acquisition** Donated by Herbert C. Brown and his son, Charles A.

**Information:** Brown

**Custodial History:** The Herbert C. Brown papers were donated to Purdue

University by Herbert C. Brown when he was on the faculty at Purdue. Brown's papers were originally housed in the small library room adjacent to his office

that was provided to Brown when he became a

Professor Emeritus in 1978. The papers remained as part of the Purdue Chemistry Department until Brown's

death in 2004, when they were transferred to the

archives. Subsequent additions of memorabilia and artwork from Brown's home were received from his

son, Charles A. Brown.

**Accession Number:** 20051206.1; 20111201

Preferred Citation: MSF 4, Herbert C. Brown papers, Archives and Special

Collections, Purdue University Libraries

**Copyright Notice:** Copyright is retained by the Brown family

## **Subject Headings**

#### **Persons**

Brown, Herbert Charles, 1912-2004 Brown, Sarah Baylen Brown, Charles B. Negishi, Ei-ichi, 1935-Wittig, Georg, 1897-

## **Organizations**

Purdue University. Dept. of Chemistry Aldrich Chemical Company Eli Lilly and Company

## **Topics**

Nobel Prize Winners – United States. Chemistry – Research – United States Boranes Organoboron compounds

## Form and Genre Types

Artifacts Audio-Visual Material Clothing Personal Papers Photographs

## Occupation

Chemists—United States.
College science teachers.
Purdue University—Faculty.

## Biography of Herbert C. Brown

Herbert Charles Brown was born on May 22, 1912 in London, England. His parents, Charles Brovarnik and Pearl Gorinstein, were Jewish immigrants to the United Kingdom from their birthplace in Zhitomir in the Ukraine. The second of four children, Herbert was born in 1912. Two years after Herbert's birth his father moved their family to the United States to join his family in Chicago, while most of his mother's family remained in the UK. The family adopted the grandfather's anglicized name, Brown.

Herbert C. Brown's father, a highly skilled cabinet maker, found few opportunities for that level of woodwork and started doing regular carpentry. The events of the Depression led to his father's decision to open a small hardware store in South Chicago. The Browns lived above the family store and Herbert began his education, advancing quickly in school until graduation in 1924, at age 12. He then entered Englewood High School on Chicago's south side.

Two years into high school, in 1926, Herbert's father died and Herbert left school at age 14 to work in the family store. In 1929, his mother took over business responsibilities and sent Herbert back to high school where he progressed again toward graduation. He wrote the school's humor column, winning a national prize. A year later, Herbert graduated from Englewood and the family sold the hardware store. At the beginning of the Depression years, he worked odd jobs.

In 1933, Herbert decided to enroll in Crane Junior College to major in electrical engineering. After taking some chemistry classes, he changed his major to chemistry. After he completed his first semester, the school closed its doors when the institution's funding was depleted. He became a part-time shoe clerk and attended night school part-time at the Lewis Institute.

Dr. Nicholas Cheronis, one of Brown's instructors at Crane, opened his laboratory to several students for self-study. While working there, Brown met Sarah Baylen, who would later become his wife. Wright Junior College opened in 1934 and Herbert and Sarah enrolled, graduating a year later in 1935 as the school's first graduating class. Sarah wrote a message to Herbert in his yearbook predicting that he would one day be a Nobel Laureate.

Herbert competed for and won a partial scholarship to the University of Chicago and enrolled in 1935, along with Sarah. University policies allowed Herbert to enroll in unlimited courses for one tuition fee and he graduated one year later, in 1936, with a B.S. in Chemistry. He had completed two years of college in three quarters. Encouraged by a famous organic chemist, Prof. Julius Stieglitz, to pursue graduate school, Herbert and Sarah discussed delaying their plans to marry and he enrolled in graduate school. They married on February 6, 1937, against the advice of Prof. Stieglitz, and Sarah took a position at Billings Hospital to supplement Herbert's

meager graduate funds. Sarah eventually graduated with her bachelors from the University of Chicago. They had one son, Charles in 1944. Brown received his PhD. in Chemistry from the University of Chicago in 1938.

Brown's academic career began when, unable to obtain an industrial position, he was instead offered a postdoctoral fellowship by Professor Morris Kharasch at the University of Chicago. The following year Professor H. I. Schlesinger invited him to become his research assistant with the rank of Instructor, where he worked for two years. He then accepted a position at Wayne University as an assistant professor in 1943, and became associate professor in 1946. In 1947, Professor Henry B. Haas offered Brown an appointment as Professor of Inorganic Chemistry at Purdue University. Twelve years later, in 1959, Brown was named Richard B. Wetherill Distinguished Professor at Purdue; a year later, in 1960, he was named Richard B. Wetherill Research Professor, a title he held until becoming a Professor Emeritus in 1978. Following his retirement, Brown remained at Purdue, working with postdoctoral students.

Herbert credits his wife and college sweetheart, Sarah Baylen, for his interest and work in borane chemistry, for which he was awarded the 1979 Nobel Prize in chemistry. She had given him a book in 1936 as a graduation present, Hydrides of Boron and Silicon by Alfred Stock, which inspired his research interest in the hydrides of boron. In 1956, he and his students discovered the hydroborane reaction that became the basis for his work in borane chemistry.

Brown's professional work comprised research programs in the borane-organoborane area, the study of steric effects, the development of quantitative methods to determine steric strains, the examination of the chemical effects of steric strains, the non-classical ion problem, the basic properties of aromatic hydrocarbons, a quantitative theory of aromatic substitution, and the development of a set of electrophilic substitution constants,  $\sigma^+$ , which correlate aromatic substitution data and a wide variety of electrophilic reactions. He passed away Dec. 19, 2004 after suffering a heart attack.

#### Sources:

Brown, Herbert C. "Herbert C. Brown." *Candid Science: Conversations with Famous Chemists*. By István Hargittai. London: Imperial College Press, 2000.. Print.

Brown, Herbert C. *Herbert C. Brown: A Life in Chemistry*. West Lafayette, Ind.: Department of Chemistry, Purdue University, 1980.

Brown, Herbert C. *Herbert C. Brown*. [Philadelphia, Pa.] : Chemical Heritage Foundation, 1994.

## **Scope and Contents of the Collection**

The Herbert C. Brown papers [360 cubic feet] documents the professional life and some of the personal life of Herbert C. Brown. The collection consists of professional papers, personal papers, publications, professional and personal correspondence, research records, university and departmental papers, graduate student work and records, photographs, awards, memorabilia, and artwork. The Herbert C. Brown Papers are organized into three series:

## Arrangement

The bulk of the collection is still in the order it was in when it was packed up. There has been minimal, re-organization within the boxes. This inventory will be periodically updated as processing occurs.

- 1. Vertical Files, circa 1930s-2003 (48 cubic feet). This series consists of reprints of articles, research records, reports, and some correspondence. Files in the series are arranged alphabetically and have been maintained in the order as when they arrived. They have been removed from the filing cabinets and placed in cubic foot boxes.
- **2.** Herbert C. Brown's Chemistry Library contents, circa 1928-2005 (340 cubic feet). This series contains the bulk of Brown's work and personal papers, as well as some personal papers of his family members. Materials consist of work files, reports, memorandums, correspondence (work and personal), personal financial papers, newsletters, student papers and dissertations, journals, photocopies of journal articles, speeches, drafts of articles, books, and information on Brown's involvement with an Eli Lilly and Company lawsuit. Also included here are photographs, slides, videotaped lectures, and laboratory equipment.
- **3.** Memorabilia and Artwork circa 1930s-2002 (32 cubic feet). This series includes artifacts and materials collected or given to Herbert C. Brown. Types of items include: academic robes and hoods, tee shirts, coins, medals, plaques, badges, paperweights, certificates, diplomas, programs, brochures, posters and art prints. Also found here are photographs, slides, videotapes, scrapbooks, photo albums, some correspondence, and publications by Charles Brown.

**Descriptive Rules** Anglo-American Cataloguing Rules, 2<sup>nd</sup> Edition / Describing Archives: A Content Standard

## **Processing Information**

An effort has been made to numerically and/or chronologically order each individual box where feasible. Some contents, such as photographs, have been sleeved for protection. Some historical or fragile materials were wrapped in archival tissue for preservation.

The memorabilia and artwork donated by Herbert C. Brown's son, Charles B. Brown, has been wrapped in acid-free tissue and placed in sleeves and boxes, and an initial inventory is

compiled. Oversized materials have been individually wrapped and labeled. Unframed photographs are stored in archival sleeves and boxes. Artifacts have been wrapped and stored in archival boxes.

Also, materials from some boxes were consolidated, so there are no numbered boxes: 89, 90, 126, 150, 151, 181, 224, 225, 226

## **DETAILED DESCRIPTION OF THE COLLECTION**

## Series 1: Vertical Files, circa 1930s – 2003

## (48 cubic feet)

### #15896

Drawer 1, Reprints of Articles, A-Ban (filed alphabetically by last name of author)

Abramovitch, R.A.

Adams, R.M.

Agenas, L.B.

Ahluwalia

Alexander, E.R.

Allen, L.C.

Allen, Mark S.

Amma, E.

Anantakrishnan, S.V.

Angyal, S.J.

Ansell, M.F.

Applequist, D.E.

Arnett, E.M.

Arora – Final Report

Ashby, E.C. (3 files)

Ayers, P.C.

Bach, R.D.

Bachman, G.B.

Baddeley, G.

Bailar, J.C.

Bailey, P.S.

Bailey, W.J.

Baird, William C.

Baker, R.

Baliah, B.

Ballester, M.

Baltzly, R.

Bank, Sheldon

Banus, D.

#### #15896

Drawer 2, Reprints of Articles, Bar-Bu

Bartlett, P.A.

Bartlett, P.D.

Barton, D.H.R.

Bartch, R.A.

Basavaiah, D. - Final Report

Bauer, S.H.

Bawn, C.E. H.

Beauchamp, J.L.

Beckmann, S.

Bell, R.P.

Benkeser, R.A.

Bender, M.L.

Bentley, T.W.

Berger, H.

Berliner, E.

Berson, J.A.

Bhatt - Final Report

Berson, J.A.

Bickel, A.F.

Bigley, D.B.

Binger, P.

Bjerrum, J.

Blackwood, R.K.

Blum, Jochanon

deBoer, Th. J.

Bordwell, F.G.

Brady, O.L.

Brackman, W.

Bradley, E.

Brandt, W.W.

Braude, E.A.

Brener – Final Report

Breslow, R.

Bruer, E.

Brewster, J.H.

Briegleb, G.

Brindley, P.B. (empty)

#### #15896

Drawer 3, Reprints of Articles, Bro-Bun

Brooke, G.M.

Brown C.A. (3 files)

Brown, W.G.

Bruice, T.C.

Bruno, G.

Bruson, H.A.

Bubnov, Y.N.

Büchi, G.

Buchman, E.R.

Bennett, J.F.

Bunton, C.A.

Burg, Anton

#### #15896

## Drawer 4, Reprints of Articles, Bur-Cl

Buraway, A.

Burg, Anton

Burg, P.V.

Burton, D.J.

Burton, H.

Burwell, R.L.

Butler, D.N.

Buys. J/R/

(Caserio)

Caglioti, L.

Caldin, E.E.

Callery Data Sheets

Callis, C.F.

Calvin, M.

Campbell, J.B.

Capon, B.

Carboni, B.

Cardwell, H.M.E.

Carey, F.A.

Carhart, H.W.

Carrick, W.L.

Case – Final Report

Cason, J.

Caspi, E.

Castro, G.

Caubere, pl.

Cleason,G.

Cha, Jin Soon

Chamberlan, M.F.

Chandrasekharan, J.

Chandrasekhar, J.

Chatt, J.

Chinoporos, E.

Chiurdoglu, G.

Chloupek – Final Report

Choi, Sang Up

Chung, T.C.

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Clifford, A.F. Closson, R.D.
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Clossen, W.D. (sic order)

#### #15896

## Drawer 5, Reprints of Articles, Co-Da

Coates, G.F.

Cobble, J.W.

Colke, J.L.

Collins, C.J.

Colter, A.F.

Condon, F.E.

Cook, D.

Cooper, G.D.

Cope, A.

Corey, E.J.

Contreras, R.

Cowdrey, W.A.

Cox, J.D.

Caxon, J.M.

Cram, D.J.

Creary, Xavier

Crsitol, S.J.

Curtin, D.

D. (Davies, D.I.; Devaprabhakara, Dr.

Dailey, B.P.

Dainton, F.S.

Dannley, R.L.

Dauben, W.G.

Davidson, N.

Davidson, N.R.

Davies, D.I.

Davies, M.M.

Davis, R.E.

Dawson, C.R.

## **Research Records** (alphabetical by subject, or by correspondent's last name)

## Drawer 1, A-BE

### Acharya

Records & Correspondence

**Progress Reports** 

**Summaries** 

## Adams

Records & Correspondence

**Summaries** 

#### Ahluwalia

Records & Correspondence

**Summaries** 

Final Report (empty folder)

## Argade

## Argade, A.

Records & Correspondence

Progress Reports (empty folder)

Summaries (empty folder)

#### Arora

Records & Correspondence

**Progress Reports** 

**Summaries** 

#### Ash

Records & Correspondence

**Progress Reports** 

**Summaries** 

### Ayyangar

Records & Correspondence

**Progress Report** 

Final Report

#### Azzari

Records & Correspondence

**Progress Reports** 

Final Report (empty folder)

#### Bakshi

Records & Correspondence

**Progress Reports** 

**Summaries** 

Final Report

## Bank

Records & Correspondence

**Progress Reports** 

## Barbaras

Records & Correspondence

PhD Thesis

#### Basavaiah

Records & Correspondence

**Progress Reports** 

Summaries

Final Report (empty folder)

#### Bell

Records & Correspondence

**Progress Reports** 

**Berneis** 

Records & Correspondence

**Summaries** 

Bernheimer

Records & Correspondence

**Progress Reports** 

**Summaries** 

#### **Research Records**

Drawer 2, Bh-Br

Bhat, K.S.

**Summaries** 

Final Report (empty folder)

Bhat, N.G.

Records & Correspondence

**Progress Reports** 

**Summaries** 

Final Report

Bhatt

Records & Correspondence

**Progress Reports** 

Summaries (empty folder)

**Bigley** 

Records & Correspondence

**Progress Reports** 

**Biswas** 

Records & Correspondence

Progress Reports

Final Report (empty folder)

Blue

Records & Correspondence

**Progress Reports** 

**Summaries** 

Final Report

Bolto

Records & Correspondence

**Progress Reports** 

**Summaries** 

Bonner

Records & Correspondence

**Progress Reports** 

**Summaries** 

Borkowski

Records & Correspondence

**Progress Reports** 

**Summaries** 

#### Bowman

Records & Correspondence

**Progress Reports** 

### Boyd

Records & Correspondence

**Progress Reports** 

**Summaries** 

## Brady

Records & Correspondence

**Progress Reports** 

**Summaries** 

#### Brener

Records & Correspondence

**Progress Reports** 

**Summaries** 

#### Breuer

Records & Correspondence

**Progress Reports** 

**Summaries** 

#### Brooke

Records & Correspondence

**Summaries** 

#### **Brost**

Records & Correspondence

## Unlabeled CB Folder

#### Dated files:

Charles A. Brown 1960-1964

Charles A. Brown 1965-1969

Charles A. Brown 1970-1974

Charles A. Brown 1975-1979

Charles A. Brown 1980-1984

Charles A. Brown 1985-1989

Charles A. Brown 1990-1994

Charles A. Brown 1995-1999

## Brown, Charles A.

Records & Correspondence (empty folder)

**Progress Reports** 

**Summaries** 

#### **Research Records**

### Drawer 3, Bu-Chl

Unlabeled Brown<sup>2</sup> Hydro-analyzer materials

### Bucher

Records & Correspondence

**Progress Reports** 

#### Buhler

**Progress Reports** 

**Summaries** 

#### Burke

Records & Correspondence

**Progress Reports** 

**Summaries** 

#### Burton

Records & Correspondence

**Progress Reports** 

**Summaries** 

#### Butler

Records & Correspondence

**Progress Reports** 

## Byrne

Records & Correspondence

**Progress Reports** 

**Summaries** 

### Cahn

Records & Correspondence

**Progress Reports** 

**Summaries** 

### Campbell

Records & Correspondence

**Progress Reports** 

**Summaries** 

## Carlson

Records & Correspondence

**Progress Reports** 

**Summaries** 

## Case

**Summaries** 

## Cha

Records & Correspondence

**Progress Reports** 

Summaries

Final Report

## Chandrase

Records & Correspondence

Progress Reports Summaries

Chen

Records & Correspondence

**Progress Reports** 

Summaries

Chen, Guangming

Progress Reports

Chloupek

Records & Correspondence

Progress Reports

**Summaries** 

### **Research Records Boxes**

De-Du	
Ea-Fi	
Fl-Gu	2 boxes
Gu-Hw	2 boxes
Ha-Hi	
Ho-Hu	
Ia-Kh	2 boxes
I-Ju	2 boxes
Ka-Ko	2 boxes
Ki-Kw	
Kr-Le	2 boxes
Li-Me	2 boxes
Mi-Nam	2 boxes
Na-Ol	2 boxes
Pa-Py	2 boxes
Q-Ra	2 boxes
Re-Sc	2 boxes

## **Non-Classical debate**

3 boxes of correspondence

## **Applications for appointment**

1 box—RESTRICTED

## **Special Publications**

1 box

## Nobel Prize publicity and miscellaneous publications

1 box

## Series 2: Boxed Materials, circa 1928-2005

(320 cubic feet)

The contents of the boxed materials below were originally housed in the small library room adjacent to Brown's office that was provided to him when he became a Professor Emeritus in 1978. The materials were packed and transferred to the Archives in 2005.

#### Box 1

Work files, 1992-2001

P-Z alphabetized folder

1992 research reprints, correspondence

Periodicals

Manuscript, Volume 3, *Organic Syntheses via boranes* by HCB and Akira Suzuki Trade and marketing publications, newsletters, pharmaceutical conference materials Travel material, map of Israel

Army research grant report, research publications

#### Box 2

Alphabetical hanging folders with manila files, 1997-1999

Hanging folders are labeled A-Z; the C folder has a second unlabeled folder holding additional C files.

## **'A'** folder, 1993

"Aldrich," contains articles, newsletters, marketing flyer, sales brochure on boron reagents, product information sheets with models of different products, envelope holding Brown Royalty Payable spreadsheets with cover letter detailing payment to Brown

## **'B'** folder, 1993

Untitled file contains "Transfer Reactions" report, duplicate Purdue interoffice memoranda asking for review of Bhat's charts

Untitled file contains fifty pages of models on different boranes/borane processes reprinted from various journals and unpublished results, 1972-1990

"HCB" file contains article by John Brown, news sheet welcoming Brown and wife to retirement home, book review on war-time borane story, typed remarks by James H. Brewster for symposium honoring HCB, Aldrich company publication dedicated to HCB on his 75<sup>th</sup> birthday, article on being cited [list of most oft-cited including HCB], printed tribute to HCB by Negishi and Racherla [two copies], reprint of Negishi research study, marked ballot information from American Association for the Advancement of Science, accident report on borane spill, borane manuscript submitted for publication in *Journal of the* 

American Chemical Society, "compuscope" [two copies] or a computer generated horoscope, correspondence with former student Donald J. Abraham, correspondence with R.H. Horowitz, short research article from *Tetrahedron Letters*, memorial newsletter featuring Brown and Nobel biographies

"N.G. Bhat Transfer Reactions" file (empty)

"Jayaraman, Ed. NGB Chart," contains edited Bhat's models

**'C'** folders, 1991-1993

### "C" folder 1

"Chandran," contains a *Heterocycles* research article reprint from Chandran; drawn models of DIP-Chloride and Alpine Borane; charts of reduction comparisons; six related research articles reprinted from chemical journals

"Chandran," contains a memo coversheet/handwritten memo from Ramachandran to HCB detailing his publication plans, followed by many notes taken on Selective Reductions numbered 49-53 and lab observations; research article on Chiral Synthesis by Ramachandran, Teodorovic, and HCB; progress report to HCB from B.Q. Gong on reduction of substituted acetophenone; photocopied *Heteroatom Chemistry* journal article on hindered organoboron groups dedicated by chemistry department at the University College of Swansea to HCB on occasion of his 80<sup>th</sup> birthday; reprint of *Journal of Organic Chemistry* article by HCB, et al., on organoboranes for synthesis

"Ramachandran, Sel. Red. 48 and Sel. Red. 49," contains edited manuscripts of selective reductions 48 and 49

"Chandra," (sic) contains models on printout; handwritten/sketched pages on reduction of monocyclic ketones; advertisement for Macintosh computers; sales brochure for ChemWindow software; drawings of models by Ramachandran; handwritten memo to HCB from Ramachandran on the reactivity of norcamphor; marketing newsletter on Macintosh workshops addressed to HCB

Untitled file, contains a photocopy of asymmetric reductions article by Ramachandran

"Chandran, Citations of HCB Publ" contains a 33-page photocopied record of HCB's publication over twelve years from *Science Citation Index* 

"CHA's MSS," contains a research article from *Tetrahedron: Asymmetry* by Korean authors; envelope addressed to HCB and containing copies of four manuscripts co-authored by HCB and Jin Soon Cha

"Asymmetric Reduction – Chandran" (empty)

"Summary of Ian Paterson's Research (Ganean)" (sic) contains a reprint of an article from *Journal of the American Chemical Society* by E.J. Corey and Sung Soo Kim; handwritten summary to HCB by K. Ganesan on Ian Paterson and David A. Evan's work from a 1992 seminar; photocopied article on chiral ethyl ketones published by *Tetrahedron* journal

## "C" folder 2

"MS for Hassner's book," contains manuscript "Asymmetric Syntheses via Chiral Organoboranes based on α-pinene"

Untitled file containing research article on carbon from *Journal of Fluorine Chemistry* with section in red pen brackets, correspondence with Takayuki Shiori regarding an article on chiral synthesis [article attached]

"Ramachandran" file, containing research article, correspondence with dissertation excerpts attached, two research studies

### **'D'** folder, 1987

Pages of excerpts, one per page, clipped in front of an article by Derek A. Davenport, a Purdue professor, who wrote about "Invective Effect" or the controversy stirred by HCB's publication on steric strains

- **E** folder (empty)
- **'F'** folder (empty)
- 'G' hanging folder, 1989,

Handwritten preliminary progress report filed by K. Ganesan; group of reference papers about Aldol stereochemistry

- **'H'** folder (empty)
- ${}^{f{i}}$  folder (empty folder)

## **'J'** folder, 1990-1993

"Jayamani," contains a research article on chiral synthesis via organoboranes by HCB and Jayamani; letter to HCB from Jayamani

"Jayaramani's Paper (Racherla's Draft)," contains a manuscript of the article by U.S. Racherla; correspondence between HCB and Jayaramani regarding publication plans

"Asymmetric Homologation Scope," contains a report detailing boronbased general asymmetric synthesis

"Final Report (R.R. Iyer)," contains handwritten report by Iyer on synthetic applications of vinylic organoboranes

"R.R. Iyer," contains three HCB, Iyer, et al. article reprints; memo to Iyer. [RESTRICTED. Folder moved to restricted materials box]

"Jayaraman Final Report," contains the handwritten final report of Jayaraman to HCB dated April 22, 1993; three reprints of articles authored by Brown, Jayaraman, et al.

"S. Jayaraman Progress Reports," contains a review from Jayaraman to HCB of a *Journal of Organic Chemistry* article; correspondence from the journal soliciting the review; the article under review; two reprints of articles; three pages titled "The Discovery and Exploration of a new Continent of Chemistry"

"Organoboranes.57. S. Jayaraman" contains correspondence between Clayton H. Heathcock, editor of the *Journal of Organic Chemistry*, and HCB regarding a Jayaraman research article under consideration; copy of the published article and accompanying structural drawings; a study on asymmetric homologation; five progress reports from Jayaraman to HCB

"S. Jayaraman," contains handwritten progress reports #27-29 to HCB

"P.K. Jadhav," contains HCB's review comments recommending for publication research done on asymmetric hydroboration in China; reference letter by HCB for Jadhav, and to Patricia Weber of du Pont Merck Pharmaceutical Co.; Jadhav writing sample and resumé

### **'K'** folder, 1992

"Kulkarni: Lactones," contains group seminar research report by Shekhar Kulkarni; correspondence between HCB as reviewer and Henry Rapoport, a senior editor with the *Journal of Organic Chemistry* 

regarding an article submitted for publication by Robert B. Bates and Sanjeev Gangwar (possibly misfiled?)

"Lactones Kulkarni" contains three handwritten research reports on lactones, best literature methods

"Synthesis of Opt. Act. Lactones. Kulkarni" (empty)

## 'L' folder (empty)

## **'M'** folder, 1980; 1992

Untitled folder containing a newsletter, *The Allembric* (July 1992); Research report on asymmetric synthesis *via* organoboranes by V.K. Mahindroo

"List of A.K. Mandal's Publications," contains a one-page list of manuscripts to be published by HCB and Mandal; three reprints of journal articles on synthesis and organoboranes

## 'N' folder, 1992

"S. Narasimhan's Publications," contains a copy of the research report he dedicated to HCB on the occasion of his 80<sup>th</sup> birthday.

## **'O'** folder, 1993

"ONR End-of-the Year Report – 1993," contains letter to Dr. Ronald A. De Marco of the Office of Naval Research with project report attached ("Physical and Chemical Characteristics of Organoboranes")

## **'P'** folder (empty)

'Q' folder (empty)

## **'R'** folder, undated

"Shenyi's Homologation Studies," undated (appears to be misfiled)

### **'S'** folder, 1989-1992

"John Schwier's Publications," contains message from Bakthan to HCB; correspondence between HCB and J.A. Marshall, senior editor of *The Journal of Organic Chemisty*; correspondence between HCB and Bakthan and Schwier; a *Journal of the American Chemical Society* reprint on hydroboration kinetics dated 1982; an article abstract from Chem & Biochem Dept., UCSC; letter from HCB to Schwier at Eli Lilly about publishing a second paper based on his research thesis and Bakthan's modifications; reprinted research article on hydroboration

that HCB sent to both Schwier and Bakthan; a letter from Bakthan Singaram, UCSC, to HCB which summarizes Schwier's dibborane research (two copies of summary are filed); manuscript of HCB and Schwier research report on hydroboration and a reprint of a 1979 *Journal of Organic Chemisty* research report by HCB, Schwier, and Singaram

"Massoud Stephan Enantioselective Synthesis," contains research report by Stephan on "Enantioselective Synthesis of Tertiary Mono and Diphosphines"

**'T'** folder (empty)

**'U–Z'** folders (empty)

#### Box 3

Boxed loose papers, 1995-1996

Article reprints; chemical marketing materials; bound collection of photocopied research articles by various authors; correspondence regarding solvolysis controversy, and science book

#### Box 4

Copies of the Purdue School of Science's newsletter, *Sequel*, Issue 4, 1980, celebrating award of Nobel Prize to HCB

#### Box 5

Manuscript materials on the NonClassical Ion Problem, ca. 1976

### Box 6

Reprints of journal articles written by HCB, et al., 1976-1996 (numbered 842-851, 853)

#### Box 7

Bound works on boranes, group research reports, and organometallic chemistry annual reviews, all ca 1970s; "Remembering HCB," 1978; program for Paris conference of Nobel Laureates, 1988

#### Box 8

Work and personal files, 1992-1997; Contains personal and professional correspondence, research reviews, trade publications, research reprints, a copy of an oral history interview with HCB (1994), royalty reports, awards nominations. Alphabetized files

"A-O" contain correspondence, 1992; manuscript box of Volume 3, "Organic Syntheses via Boranes," by HCB and Akira Suzuki

#### Box 9

Bound topical literature reviews (e.g. Solvolysis), ca. 1950s/1960s Seminar assignments, lecture notes from 1942-1945; a current trade publication, a thesis by Haywood-Farmer University of British Columbia (not HCB student), 1967

#### **Box 10**

Reprints of journal articles written by HCB, et al., 1959-1963; 1983-1986; 1991-1996 (numbered 201-300, 901-1000, 1101-1200 x6 boxes)

#### **Box 11**

Reprints of journal articles written by HCB, et al., 1959-1963; 1968-1974; 1981-1991 (numbered 201-300, 401-600, 801-1000, 1001-1100); also contains bound volume of reprints from 1981-1983 (numbered 801-900)

#### **Box 12**

Reprints of journal articles written by HCB, et al., , 1959 - 1973, articles 201-650, one out-of-sequence box of articles 1095-1091, undated and correspondence about reprints sent out.

#### Box 13

Reprints of journal articles written by HCB, et al., 1959-1983 (numbered 201-900) [601-650 X 2 boxes]

#### **Box 14**

Final reports by HCB students, 1995-1999; Students' Publications (bound), 1977- 1999; HCB Group's Poster Presentations (bound), 1996; Organometallic Chemistry Review, Annual Surveys, 1964-1970 (bound)

#### **Box 15**

Final reports (bound), bibliographic compilations, 1987-1998, publications records, nomination dossiers, 1987, project proposals, chemistry reviews, et al., dated 1972-2000

#### **Box 16**

Reprints of journal articles written by HCB, et al., 1959-1971, 1986-1991; box of Barton Models; Office of Naval Research progress reports, 1950; Army Research Office report, 1984 (not classified)

#### **Box 17**

Aldrich royalty reports, 1973-1993, 2002; symposium program inaugurating the HCB

Distinguished Professorship, 2000; two books of handwritten lecture notes in HCB's script from his teaching days at the Jones Chem. Lab at the University of Chicago, ca. 1935-1936

#### **Box 18**

Research reports from HCB's research group, ca.1969-1974

#### **Box 19**

Reprints of journal articles written by HCB, et al., 1963-1996, 1980

#### **Box 20**

Aldrich royalty reports, 1994-2000; Midland Lecture Series slides; partial manuscripts of "Organometallic Chemistry" (Ch 45.6-45.11), undated; "Organometallic Reagents in Organic Synthesis," ca. 1980; and "Inorganic Reactions and Methods" (Ch. 5.3.2.4-5.3.2.50), undated

#### **Box 21**

Reprints of journal articles written by HCB, et al., 1959-1981

#### **Box 22**

Reprints of journal articles written by HCB, et al., 1968-1977, 1981-1986 (numbered 401-700, 801-1000); contains leather-bound volume of HCB's first publications from 1938-1953 (numbered 1-100, tissue-wrapped); miscellaneous papers, 1997-2001 (slide presentations, student poster session schedules, correspondence); text of Royal Society of Chemists seminars, Swansea, 1984; Reports/materials, Naval Research Office, 1987

#### **Box 23**

Reprints of journal articles written by HCB, et al., 1955, 1963-1974, 1976-1977, 1981-1991

#### **Box 24**

Manuscript of Boranes in Organic Chemistry, 1971-1975; undated

Duplicates of book chapters I-XX

Galley with proofreader's marks, undated

Correspondence, ("Boranes in Organic Chemistry"), 1971-72

Loose papers, correspondence, 1972-1975

Royalty terms, advertising and marketing pieces, book reviews, letters between HCB and Cornell University Press, solicited endorsement letters from chemists receiving gratis copies of the book, shipping reports, lists of publications reviewing book, page proofs

#### **Box 25**

Reference books, 1938-2000

Assorted texts, including HCB's *Modern Aspects of Inorganic Chemistry*, 1938, self-inscribed "Herbert C. Brown, University of Chicago"

Various annual publications:

The Year Book, 1994, 1995, 2000 Annual Review of Physical Chemistry, 1962-1964 Inorganic Synthesis, volumes 1-4 Progress in Stereochemistry, 1-2 Progress in Organic Chemistry, volumes 2-5, 7

#### Box 25a

#### **Box 26**

Symposia/conference proceedings, chemical periodicals, 1993-1996

#### **Box 27**

Bound reprints of HCB publications, 1954-1971 (Numbered 101-500); and books: *Handbook* of Chemistry and Physics, 1967-1968; No More War!, 1958; Inorganic Chemistry, 1953; Calculus, 1961; two (2) copies of Selected Values of Chemical Thermodynamic Properties, 1952

#### Box 27b

#### **Box 28**

Manuals and loose papers, 1989-1999

Laboratory techniques manuals; slides, research notes; travel itineraries

#### **Box 29**

Reference books, miscellaneous, 1895; 1952-1998

Annual Reports of the Royal Society of Chemistry, 1981/A, B, C – 1993/C Royal Chemical Society Reviews, 1981

Progress in Organic Chemistry, volumes 1, 3, 6

Annual Surveys of Organometallic Chemistry, volumes 1, 3

Indian National Science Academy, New Delhi, The Yearbook, 1992, 1993, 1998 Scientific German Reader, Dippold, 1895

#### **Box 30**

Work and personal files, 2000

HCB and Sarah Brown's healthcare issues; trade publications; professional and limited personal correspondence; travel itineraries; invitations to speak; lecture slides; planned giving documents and correspondence; estate planning information; documents about the manufacture of components of the drug Prozac

#### Box 31

Bound HCB publications, 1962-89, 1991-96; list of HCB and coworkers' publications and addresses, undated; copies of Exponent article on 90-year-old HCB, 2002; books of research compiled by Russian chemist Palm of Estonia, 2 volumes, 1962, 1963; Chemical Analysis, 1960

#### **Box 32**

Work files, 1957-1989

Information on Brown hydrogenator, gasimeter

Market survey on organoboranes

Exxon consulting agreement and correspondence

Correspondence regarding sales of HCB discoveries to Ethyl Corp., Shell, Esso, etc.

Patent applications, domestic and international (UK, Italy, France, Australia, Japan,)

Handwritten process disclosure on conversion of internal olefins into primary organoboranes

Involvement of Purdue Research Foundation in patent sales agreements

Correspondence/informational materials regarding metal hydrides, 1954-1965
(some involving Schlesinger)

Correspondence with H.I. Schlesinger, late 1940s through 1960s, including telegram of death notice by Richard Schlesinger and letter dated June 28, 1957, regarding Schlesinger's conveyance of uranium project papers to HCB and HCB request for Signal Corps papers

#### Box 33a

HCB Tribute and Bio, multiple copies; manuscripts; final reports; HCB lecture program bulletins, 1980-1997, 2002

#### Box 33b

Hydroboration galleys, envelopes with notes 1960

#### **Box 34**

Reprints of journal articles written by HCB, et al., 1974-1981, 1983-1986, 1991-1996

#### **Box 35**

Early texts used by HCB: 1901, 1933, 1944, 1949; later texts in HCB collection, ca. 1960s-1970s; CRC handbook, 1980; HCB bound publications, 1963-1968; Aldrich bound product lists, 1991

#### **Box 36**

Reprints of journal articles written by HCB, et al., 1959-1963, 1974-1981, 1986-1991 (numbered 201-300, 601-800, 1001-1100)

#### **Box 37 OVS** Contents: Oversize Materials

Hanging file folders 1-9, ca. 1990s

Lecture slides; seminar notes; National Institute of Health proposals, 1994-1997; Army Research Office proposal, 1993; National Science Foundation proposals, 1991-1997

Literature search for hindered amines, ca. 1992 (in binder)

SciFinder Scholar Search on HCB publications, 1966-1999 (in binder)

"Organic Synthesis via Boranes," Volume 2, manuscript at proofing stage, 2000 (manuscript)

"Organic Synthesis via Boranes," Volume 2, chapter contributions from Marek Saidlewicz, Poland, 1998 (manuscript)

"Organic Synthesis via Boranes," Volume 2, typeset version with figures in place, 2000 (manuscript)

"Advances in Organic Syntheses Via Boranes," P.V. Ramachandran and HCB, *American Chemical Society* symposium series manuscript, with Oxford UP marketing survey, cover design mock-ups, 2000 (manuscript)

 $5^{\text{th}}$ ,  $7^{\text{th}}$  –  $10^{\text{th}}$  Report(s) on Research of the Petroleum Research Fund, 1960-1965 (book)

Proceedings, technical bulletin, lab guide, pharmaceutical research publications, 1966-2000 (books)

## Box 37a

#### Box 37b

Reprints of journal articles written by HCB, et al., 1959-1962; 1974-1986

### **Box 39 OVS Contents: Oversize Materials**

Numbered publications by H.C. Brown, 1971-1991

Publications 501-600, 1971-1974

Publications 601-650, 1974-1976

Publications 651-700, 1976-1977

Publications 651-700, 1976-1977 [duplicate box]

Publications 701-800, 1977-1981

## Box 39b

Publications 801-900, 1981-1983

Publications 801-900, 1981-1983 [duplicate box]

Publications 901-1000, 1983-1986

Publications 901-1000, 1983-1986 [duplicate box]

Publications 1001-1100, 1986-1991

#### **Box 40**

Reprints of journal articles written by HCB, et al., 1959-1963, 1968-1981, 1986-1991 (numbered 201-300, 501-800, 1001-1100); printed manuscript of *Organoboranes in Organic Synthesis* by HCB, M. Zaidlewicz, E. Negishi

#### **Box 41**

Publications by HCB and co-workers, 1963-1991 Publications 301 – 700; 902-1100

#### **Box 42**

Reviews, 1952-1974

London: The Chemical Society quarterlies cover 1952-1974

London: The Chemical Society annuals cover 1958-1961, 1964-1966

#### **Box 43**

Manuscripts of "Organic Synthesis via Boranes, vol. 2" and "vol. 3", 2001; work by E. Negishi, ca. 1980; Commemorative volume about Nung Min Yoon, containing foreword by HCB; early research volumes, written by HCB during years at University of Chicago, ca. 1937-1944

#### **Box 44**

Papers pertaining to boron chemistry, 1996-1999

Article reprints; manuscript contributions for encyclopedic use (multiple copies of contributions authored by Raj Dhar, John Soderquist, Mark Zaidlewicz retained); article reprints and manuscripts by Eric Scerri; articles authored by HCB and Ramachandran on asymmetric synthesis; article by HCB on the generation of borane

#### **Box 45**

Journal volumes of annual reports, 1934-1980

Annual Reports on the Progress of Chemistry, The Chemical Society, 1934 Annual Reports on the Progress of Chemistry, The Chemical Society, 1935 Annual Reports on the Progress of Chemistry, The Chemical Society, 1936 Annual Reports on the Progress of Chemistry, The Chemical Society, 1937 Annual Reports on the Progress of Chemistry, The Chemical Society, 1938 Annual Reports on the Progress of Chemistry, The Chemical Society, 1939 Annual Reports on the Progress of Chemistry, The Chemical Society, 1940 Annual Reports on the Progress of Chemistry, The Chemical Society, 1941 Annual Reports on the Progress of Chemistry, The Chemical Society, 1969A/B Annual Reports on the Progress of Chemistry, The Chemical Society, 1970A/B Annual Reports on the Progress of Chemistry, The Chemical Society, 1971A/B Annual Reports on the Progress of Chemistry, The Chemical Society, 1972A/B Annual Reports on the Progress of Chemistry, The Chemical Society, 1973A/B Annual Reports on the Progress of Chemistry, The Chemical Society, 1974A/B Annual Reports on the Progress of Chemistry, The Chemical Society, 1975A/B Annual Reports on the Progress of Chemistry, The Chemical Society, 1976A/B Annual Reports on the Progress of Chemistry, The Chemical Society, 1977A/B Annual Reports on the Progress of Chemistry, The Chemical Society, 1978A/B Annual Reports on the Progress of Chemistry, The Chemical Society, 1979A/B/C Annual Reports on the Progress of Chemistry, The Chemical Society, 1980A

### **Box 46**

Annual reports, journals, paper collections, abstracts of papers, 1950-1971

Journals include quarterlies from *London: The Chemical Society*, 1950-1968

(incomplete); bound abstracts from *American Chemical Society*, regional meetings, 1952-1968; bound abstracts from *American Chemical Society*,

national meetings, 1943, 1949, 1956, & 1958; journals regarding symposium publications related to petroleum chemistry, ca. 1954; HCB-inscribed speech on back cover, 15<sup>th</sup> National Organic Chemistry symposium, 1957

Bound annual reports of *The Chemical Society*, 1944-1959. 1962-1965 Bound annual report from *Royal Society of Chemistry*, 1980

#### **Box 47**

Abstracts and proceedings, books, programs, 1944-81

Publications include:

Chemical Society Reviews, 1976-1981

Quarterly Reviews, Chemical Society, 1966-1970

Chemical Reviews, American Chemical Society, 1956

International Congress of Pure and Applied Chemistry, 1955, 1959, 1963, 1964

Boletin del Instituto de Quimica, 1945-1953 (incomplete)

"Odd lot" research bulletins, 1953-1978

Organic Chemistry Symposium, American Chemical Society, 1946, 1949, 1951 Div. of Petroleum Chemistry papers, American Chem. Society, 1946, 1951-1954

Div. of Organic Chemistry abstracts, American Chem. Society, 1944-1967 Answer Book: Chemistry A Life Science Approach, 1975

#### **Box 48**

Various bound works, including assorted manuscripts, topical reports, 1972-1987; correspondence record, 1996-1997

#### **Box 49**

Books, 1951-1998

*Reagents for Organic Synthesis* (3 volumes)

Chemistry of Carbon Compounds (3 volumes, 6 books)

Miscellaneous Texts

*Tetrahedron* issues, 1976, 1977, ("Explorations in the Nonclassical Ion Area") Publications dedicated to HCB at 90<sup>th</sup> birthday (picture of HCB at celebration inside)

#### **Box 50 OVS Contents: Oversize Materials**

Work and personal files, 1974-2001

Progress reports, lab notebooks; Vinylboranes bibliography; HCB biography; slide printouts; Charles A. Brown papers [RESTRICTED. Items moved to restricted materials box.]; appointment papers for postdoctoral students; slide printouts; research article reprints; manuscript submissions; journals; popular magazines; handwritten lists of HCB and Sarah Brown's priorities; royalty reports; envelope with HCB pictures; research team communications; research article reprints; report of 1<sup>st</sup> PRF project; Schlessinger biography correspondence and manuscript

### **Box 51 OVS** Contents: Oversize Materials

Work files, circa 1981-2000

Purdue business; various publications; correspondence; science texts.

#### **Box 52**

Work and personal papers, 1995-2000, odd lot papers, 1968

Marketing materials; various publications (magazines, research journals, etc.); HCB speech/slides; hand-drawn diagrams; manuscripts submitted to HCB; seminar, symposium papers; miscellaneous correspondence (departmental, 2000 Nobel Laureates reunion, etc.); RESTRICTED: Moved to Box 117 Sarah Brown's last will and testament; copies of HCB/SBB Trusts, circa 1968; compensation schedules; university memoranda; lecture notes for Chem 630X

#### **Box 53**

Work files and loose papers, circa 1980; 1994-2000

Research article reprints, 1985-1995; University of Chicago's publications of HCB dissertation; HCB publications; folder of letters requesting HCB's signature and/or memorabilia (photos, etc.); black and white photo of HCB in tuxedo holding award; Achievement award at int'l boron conference (IMEBORON IX in Heidelberg)

### **Box 54**

Work and personal papers, 1993-2000

Research article reprint, 1978; HCB tribute book; marketing materials; various publications (magazines, research journals); miscellaneous correspondence; HCB living will, "Remembering HCB" book, ca. 1978; photocopied reprints of article by Charles Brown

#### **Box 55**

Work and personal papers, 1993-1998

Various publications and marketing flyers; HCB articles; 1994 symposium presenters' articles; travel itineraries and correspondence; research article reprints, 1958

#### **Box 56**

Work and personal files, 1992-2001

Holiday correspondence, pictures of HCB and Sarah Brown; personal and professional correspondence; itineraries; petition to support stem cell research; requests for post-doctoral posts

#### **Box 57**

Work files, 1993-1998

Manuscripts sent to HCB for editing; research article reprints; miscellaneous correspondence (honorary doctorate, etc).

#### **Box 58**

Work files and artifacts, 1979-2004

Assorted artifacts; working files (correspondence, research reports, slides); review manuscript of vol. 2 *Organic Synthesis through Boranes*; books; acrylic framed photo

with Whittig (1979); historical materials about fellow chemists such as Schlesinger; published features of HCB

#### **Box 59**

"Compilation": Table of Contents and 17 research articles, undated

Stack of miscellaneous papers, 1968-1972

National and university newsletters and bulletins, professional organization reports, minutes, and bulletins (American Association of University Professors, Council of Graduate Schools in U.S., *Organic Chemical Bulletin*), departmental notices, account notices, symposium/colloquium notices/reports, Graduate School minutes, University Senate minutes, School of Science Faculty minutes and memoranda, various technical papers, journal article reprints and article manuscripts, programmatic brochures, notations/ formulas/ models in HCB's hand, conference reports, chemical price list, solicitation letter regarding national Antiballistic Missile program expenditures, budgets for graduate student hires, Sigma XI membership list, faculty salary spreadsheets, letters, press releases, handwritten business "card," project cancellation slip, phone message slips

## Trade/professional publications, 1969-1973

National Academy of Sciences, National Research Council, American Academy of Arts and Sciences, Chemical and Engineering News

American Chemical Society article reprints, 1967-1968

Journal of the Chemical Society article reprints, 1960-1962

Society of Chemical Industry reprints and International Journal of Organic Chemistry reprint, 1959

Manuscript of anthology sent to HCB by John C. Bailer, Jr., 1961-1962

Manila envelope containing spreadsheets on Texaco, Inc., 1973

Budgetary information on this project directed by HCB. Includes notice of "Overdrawn Project," lists of people to receive presentation copies of *Boranes in Organic Chemistry*, National Science Foundation and National Institute of Health handwritten project accounts

Unbound research articles, ca. 1962-1963

[Sequential pagination suggests manuscript of anthology]

### Typewritten HCB paper, undated

"Steric and Electronic Effects in the Solvolysis of Substituted Phenyldimethylcarbinyl Chlorides – Electrophilic Substituent Constants," undated

Miscellaneous handwritten spreadsheets of solvolysis, acetylation, et al., ca. 1957-1958

Reprints from 1957-1958 *Journal of Chemical Science*; miscellaneous research articles intermingled; report on "Method of Least Squares;" technical report published by the Office of Naval Research (1957)

#### **Box 60**

Correspondence, B-C, 1955-2001 (filed alphabetically)

#### **Box 61**

Working files on Aldrich Chemical, 1973-2000

Correspondence regarding licensing agreements, royalty payments, business conducted with Clint Lane and ACC associates over the years.

#### **Box 62**

Working files, 1941-1979

Photocopied research articles on crystal and molecular structures of compounds, circa 1964

Correspondence, circa 1960-1966; research reprints/typed manuscripts of 1942-1943 work done by S. Wintein, Wm. Saunders, et al.

Canadian and French Patents issued in fall 1959 pertaining to manufacturer's suit; photocopies of patents; Canadian court case manuscript; Swiss patents, 1941; research articles; 1960-1961 research; 1962 correspondence and copies of patents sent to HCB by the Patent Law Department of the Upjohn Company; folder titled "Memorandum and Annexes," circa 1955-1956

"Rates," contains handwritten research and models, circa 1960s

Papers about rates of solvolysis research, circa 1962- 65; correspondence about Brown's controversial research article on phenomium ions

Newspaper clippings pertaining to HCB's Nobel Prize, 1979

#### **Box 63**

Hydroboration manuscript (proof pages, chapters 1-5) from Aldrich, 2000

Correspondence, 1952-2002

Collins, Clair J., 1954-1980

Colter, Allan K., 1962-1968

Columbia Organic Chemicals Company, 1960-1970

Condon, Frank E., 1955-1975

Cope, Arthur C., 1956-1966

Corey, Elias J., 1957-1990

Cornell University Press, 1969-1984

Corning Glass, 1968-1973

Crabbé, Pierre, 1963-1979

Cragg, Gordon, 1971-1984

Cramm, Donald J., 1952-2001

Cristol, Stanley J., 1956-1987

Culp, Bartow, 2002

Curtin, David Y., 1964-1976

Cr-Cu miscellaneous correspondence, 1955-1999

U.S. Customs, Curcaneanu, Cuono, Cullen, Cucinella, Croxton, Crown, Cross, Crosby Chemical Company, Cromwell, Criss, Criegee, CRC Press, Crawford, Creary, Crawford, Craven, Crane, Russak & Co., Crandall, Craig, Crain,

Cramer, Cullen [Coxen, misfiled]

Callery Chemical Company, 1959-1976

Capon, Brian, 1964-1976

Caspi, Eliahu, 1968-1979

Chatt, J., 1957-1979

Chemical Samples Company, 1964-1968

Chmielewski, Jean, 2002

Chulabhorn Research Institute, 1990-1999

Cities Service Company, 1961-1970

Clark, David T., 1976

Clark, Samuel F., 1955-1961

Coates, Geoffrey E., 1961-1968

Coates, Robert M., 1976-1979

Cohens [A. David/Joseph/Ray/Phil/Saul/Stewart], 1970-1979

#### **Box 64**

Various HCB manuscripts; HCB oral history, ca. 1970-1980s; reports, lab notebooks, and correspondence addressed to HCB re: notebook procedures

#### **Box 65**

Work files, circa 1980s-2000

"D" correspondence files, 1955 to 1990s; materials from National Academy of Sciences; correspondence and research materials; marketing materials; trade publications; articles for review/publication; departmental memoranda; travel itineraries; consulting schedules (Exxon); Aldrich royalty reports

#### **Box 66**

Work and personal files, 1981-2003

Bound reports on pheromones research; photographs of HCB (color and B&W), some signed; photos of research groups, photos of HCB and Sarah Brown; photo of HCB at Nobel Award ceremony; numerous versions of biographies; papers regarding the establishment of the Brown Research Fund; various lectures; living trust papers; "HCB Personal" file contains genealogical information, including burial agreement, certified copy of an entry of HCB's birth in England; estate accounting/correspondence; Sarah Brown's innoculation records; retirement correspondence; four 8mm tapes and one 54 (58?)mm tape labeled "Nobel Day"

#### **Box 67**

HCB-led dissertations, 1957; HCB publication searches and searches on borane chemisty

#### **Box 68**

HCB-led dissertations, 1957-1961, 1967

#### **Box 69**

Slide presentations, circa 1980s

HCB lectures and speeches; includes slide show of the Nobel Ceremony

#### **Box 70**

Two carrying cases with the parts for two gasimeters, undated

#### **Box 71**

Plastic case with lab apparatus; folders of HCB honorary listings (Who's Who, etc.), 1972-2000

#### **Box 72**

Work files and books, 1967-2002

Books of HCB research and published works on organic chemistry, Hiring procedures, personnel information separated to **RESTRICTED** Box 117.

#### **Box 73**

Work files and artifacts, 1994-1997

Regarding the manuscripts in various stages on Molecular Addition Compounds and the patenting process of it; set of seminar slides by HCB and Marek Zaidlewicz about the new borane reagents for hydroboration; Suzuki coupling manuscript; equipment box containing a glass testing apparatus made by Ace Glass, NJ, undated

#### **Box 74**

Work files, 1968; 1983-2004

Research reports; symposia proceedings; correspondence regarding HCB's 2002 memoir by Brownians; work on hydroboration, circa 1980s

#### **Box 75**

Leather portfolios, 2000-2002

Letters, itineraries, conference programs, pictures of HCB research group, departmental communications 2002 (brown portfolio)

"Current Correspondence," contains 2001 letters, emails, trade publications, research article reprints, newsletters, marketing materials, personnel documents, itineraries, etc. (black portfolio) (unrestricted materials)

#### **Box 76**

Work files, 1984; 2002

Reference books Borane manuscript, 1984

#### **Box 78**

Work files in two cloth tote bags, 2002-2003 General correspondence, 2002; work papers, 2003

## **Box 79**

Work files, 1997-1998

Loose materials, 1997, in front of first hanging folder:

Letter from HCB to send to friends recapping the celebration of his fifty years at Purdue; photocopies of *Journal and Courier* news feature on Brown; photocopies of feature detailing an art exhibition held in HCB's honor

## Hanging folder 1, 1997

"HCB Handwriting Analysis Erwin P. Erp, III (Trey)" contains correspondence between HCB and the Baylor University psychology majoring in graphology that requests a writing sample from HCB for the purpose of analysis; handwriting sample; report on analysis of HCB's writing sample

## Hanging folder 2, 1997

"Pertinent Publications on the nonclassical ion question," contains photocopied research article from *Journal of Organic Chemistry*; photocopy of article "On Opinion in Good Men: An Oblique Tribute to H.C. Brown (au. Derek A. Davenport, Purdue); book review by Dr. M. Hanak of HCB's *The Nonclassical Ion Problem*; printed lecture delivered by HCB at Burlington House in 1955 on "Chemical Effects of Steric Strains"; HCB article reprint from *The Chemical Society, London*, 1962

Set of two research reports from Dan Fărcașiu for HCB's perusal before publication

Reprint of HCB article published in 1972 in the *American Chemical Society* ("Convenient Synthetic Routes to the 5,6-Trimethylenenorbornanones")

"Nonclassical Ions /Arr. late Aug. 19. Disc. Aug. 20, 1997 Stephen J. Weininger mid-August Aug. 20, 1997," contains letters from Stephen J. Weininger, Worcester Polytecnic Institute, requesting interview with HCB regarding the controversial nonclassical ion; two of Weininger's publications in reprint as assurance of his credentials as chemist and historian in the field; response from HCB welcoming such discussion; correspondence regarding the upcoming visit to Purdue by Weininger and his wife, including itinerary, reservation information, directions, and maps; a reprint of 1972 HCB publication from *Journal of Organic Chemistry*, about synthetic routes to the

5,6-Trimethylenenorbornanones and *Journal of Organic Chemistry* 1985 reprints of HCB's research in structural effects in solvolytic reactions "Nonclassical Ions Stephen J. Weininger Mid-Aug. Aug. 20," contains photocopies of the letters exchanged by HCB and Weininger

Untitled file contains four research reprints, one inscribed: *Journal of Organic Chemistry*, 1997, Neil Buckley's resolution of the 7-Nortricyclanone anomaly; *Tetrehedron*, 1997, report by Ei-ichi Negishi and Martin Kotora on region- and stereoselective synthesis; *Tetrehedron*, 1997, report reprint on stereoselectivity in asymmetric reductions with boranes inscribed by first author, Milorad M. Rogic; *Accounts of Chemical Research*, 1997 research report reprint by R.S. Brown on the early steps in electrophilic bromination

# Hanging folder 3, 1997

"Brown's 85<sup>th</sup>" contains much and varied correspondence related to the planning, arrangements, execution, and subsequent recapping of the HCB celebration held in April of 1997

Memo of congratulations from P.V. Ramachandran upon receipt of a video cassette of the celebration

Correspondence between Dr. Charles and Dalia Brown and the San Jose, California, Children's Discovery Museum regarding a \$2,500 gift in honor of HCB's 85<sup>th</sup> birthday and its arrival at the museum

Letter of regret from HCB to arrangers of a retirement tribute to Professor Edward A. Fletcher

Letter from Dr. Alfred Bader's office manager to HCB informing him when Bader would respond to HCB's letter

Photocopies of letters to HCB about the celebration from his son and grandchildren, addressing him as Chaim and Saba, respectively

Copies of HCB letter to family and friends after the celebration

Letter of appreciation from HCB to Professor E.I. Negishi for his leadership in arranging the celebration, with mentions of now-renowned associates who attended and with remark of regret about Steven C. Beering's absence from the occasion

Exchange between HCB and Albert C. Finhold, including letter of regret from Albert C. Finholt to HCB about missing the celebration for health reasons (the letter gives several historical anecdotes about HCB in Chicago days); letter of response to Finholt from HCB giving clarification of work/team-building decisions at the University of Chicago; letter of response from Finholt to HCB full of anecdotes about Finholt's time, studies, and work at Purdue, his departure to Chicago, and his curiosity about HCB's move to Wayne

Letter of regrets/congratulations to HCB from S. Sivaram
Letter of regrets/congratulations to HCB from Bruce A. Carlson, DuPont
Letter of thanks for fine event from Arno and Blossom Cahn
Report of Royalties from Sale of Borane Patents in 1972 to the Aldrich
Chemical Co. (\$1.6m from 1982-90)

Handwritten letter from HCB to Clint Lane regarding plans for donations to Purdue and how they should be used

# Hanging folder 4, 1997

"Videos," contains letters of thanks for the videocassette sent out after HCB's celebration; typed video mailing list; handwritten list of intended recipients

"Video-Cassettes," contains checklist for celebration activities attendee participation; thank you letters; addresses on handwritten list; HCB letter to accompany videocassette mailing

# Hanging folder 5, 1997

"HCB Lectures Replies: Can't make it," contains letters about 85<sup>th</sup> birthday celebration, greeting cards, and lecture/symposium brochures

# Loose file, 1997

"Neil Gordon, Madeleine Jacobs Ed. C.E. N.," contains email exchanges, *Chemical Engineering News* 

# Hanging folder 6, circa 1998

"Photos of HCB and Nobel Medals," contains color photos of the Herbert C. Brown Medal and color photos of the Nobel Prize Medal

"Chen's Photos of Nobel and HCB Medals," contains color photos and color copies of medal photos

# Hanging folder 7, circa 1998

California-Pacific Lab and Consulting/Ron Najafi

# Loose file, 1999

"Aldrich/Chem. Eng. News," contains a group of email exchanges over the magazine's failure to list Aldrich in their top 75 companies list; June 7, 1999, issue of *Chemical & Engineering News*, email photocopies

## Hanging folder 8, 1997

"HCB Medal," contains correspondence, two-dimensional prototypes of HCB medal

## Hanging folder 9, 1997-1999

HCB medal, "ACS 1998 National Award Winners," contains list of award winners from *Chemical & Engineering News* 

"ACS H.C. Brown Medal and Award (Aldrich)," contains photocopies of Brown's personal check to American Chemical Society for HBC Award

"HC Brown Medal," contains photocopies of facsimile transmitted from HCB to Clinton Lane

# Loose file, 1996-1997

Miscellaneous correspondence from HCB

## Hanging folder 10, 1997

"Chem. Eng. News Neil Gordon; HCB Medal," contains photocopies of *Chemical & Engineering News*; copies of September 15, 1997 issue of *Chemical & Engineering News* 

# Hanging folder 11, 1997-1999

"Finances H.C. Brown Medal and Award," contains correspondence from the *American Chemical Society* regarding receipt of Sarah Brown's donation to the HCB Medal endowment; correspondence regarding donation of \$5,000 prize of HCB's to Borane Research Fund at Purdue; document establishing an HCB endowment fund by ACS

# Hanging folder 12, 1997

"Correspondence with *Journal and Courier* for Permission to Publish," contains correspondence between HCB and the newspaper, seeking permission to publish a *Journal and Courier* cartoon elsewhere

"Sarah's correspondence with Jack Roberts, Istvan Hargittai, Joe Burnett," contains letters from Sarah B. Brown regarding the controversies surrounding HCB's work on steric strains and nonclassical ions

## Hanging folder 13, 1978; undated

"Sarah's Letter re: HCB Introduction to 'Remembering Herb' " contains copies of Sarah's writing for the memoir of HCB, which was published in 1978

"Sarah's Letter to Jack Roberts, letters with Istvan Hargittai and Joe Burnett," contains copies of correspondence

# Hanging folder 14, 1997-1998

"Álfred Bader HCB Medal," contains correspondence between Ei Ichi Negishi and Alfred Bader

"Chemical Intelligencer. Hargittai," contains correspondence regarding publication of the HCB cartoons

## Hanging folder 15, 1997-1998

"Alfred Bader," contains original and copies of a letter from Alfred Bader to Sarah Brown regarding publication of her letter in the *Chemical Intelligencer* 

"Sarah's Correspondence with Jack Roberts, Isvan Hargittai, Joe Burnette," contains handwritten copy of Sarah's letter defending HCB and photocopies of related correspondence

Envelope, 1998, titled "Sarah's Letter to Jack Roberts Excess Copies" contains photocopies of Sarah's letter

"Sarah's Correspondence with Jack Roberts, Isvan Hargittai, Joe Burnette" contains duplicates as seen in other files, plus a photocopy of the *Chemical Intelligencer* article in question and a letter between HCB and Jack Roberts with Roberts' reponse

Loose file, 1999, holds photocopies of SBB's letter to the editor of *Chemical Intelligencer* 

# Hanging folder 16, 1997-1998

"H.B. Hass. Beginnings of Organic Research at Purdue University," contains HCB memo to colleagues regarding history of Purdue program; photocopy of H.B. Hass typed history

# Hanging folder 17, 1997-1998

"Abstracts for Award Symposium, Dallas, TX 3/29/98," contains photocopies of the *American Chemical Society*'s 215<sup>th</sup> National Meeting and abstracts of speakers on boron-related research

Envelope, 1998, contains white paper printout of slides from Bahthan Singaram's presentation at the Dallas meeting

Envelope, 1998, contains white paper printout of slides from P.V. Ramachandran's presentation at the Dallas meeting

Envelope, 1998, contains the color slides on white paper printout from Donald S. Matteson's presentation at the Dallas meeting

Envelope, 1998, contains the white paper printout of slides from HCB's presentation at the Dallas meeting

# Hanging folder 18, 2000

"Eli Lilly – Enhanced Prozac," contains one direct mail piece from Lilly mailed to Sarah Brown telling of political climate for pharmaceutical R&D; photocopy of Lilly newspaper article on Zyprexa and Prozac; newspaper clipping of article

Untitled file, 2000, contains *Journal & Courier* newspaper clipping of Lilly's expense to protect Prozac's patent; newspaper clipping of *Wall Street Journal* article on Lilly's fight to keep Prozac patent intact

# Hanging folder 19, 1998-1999

"Prozac – News Stories," contains assorted newspaper clippings

# Hanging folder 20, 1998

"Eli Lilly Prozac Case (Days Spent)," contains correspondence, invoice, and envelope with check from law firm all regarding a lawsuit against Lilly in Indianapolis for which HCB provided expertise [Note from SM: need to check if this should be restricted, if there was a lawsuit with confidential proceedings]

"Editing of Transcript of Deposition of October16 and 20, 1998," correspondence of HCB and Lilly's law firm and copy of HCB deposition

"Eli Lilly Prozac Case Correspondence," contains correspondence between HCB and Lilly's law firm regarding HCB's hire as a consultant and the work undertaken by HCB, including reports by other experts

# Hanging folder 21, 1998

Transcripts of HCB's testimony in the Lilly Prozac/Barr case **Restricted** and moved to box 117

## Hanging folder 22, 1999-2000

"Kevin Cullen," contains proposal of *Journal & Courier* article by Ei Ichi Negishi and related correspondence, biographical materials [2 folders]

"Kevin Cullen Dec. 1, 1999, article" contains newspapers with final version of proposed article

"Multiple Copies," 2000, contains research journal article titled "The Art and Science of Total Synthesis"

## Hanging folder 23, 1979-1998

"Eli Lilly Prozac Patents and Publications," contains copies of articles, patents, news accounts

# Paper folder:

"Literature Dealing with Prozac Case," 1969-1998, contains research materials pertinent to Lilly Case

# **Box 80** Shelf 5.6 Books, 1971-1998

Le Prix Nobel annuals, 1978-1985, 1991-1993, 1996-1998; Nobel Prize-related books 1985-1993; books on Dow Chemical; assorted international books of commemoration; books on synthesis; press catalog and football program

#### **Box 84**

PhD Theses and Bibliographies, 1977-1982

PhD theses overseen by HCB,1977-1982

Bound copies of bibliographies on Hydroboration compiled by Mark Zaidlewicz

## **Box 85 OVS Contents: Oversize Materials**

Research reports and bound paper slide shows, 1991-1996

#### **Box 86**

Work files, 1962-2000

Correspondence for Brown<sup>2</sup> licensing agreements for apparatus invented by HCB and son, marketing discussions, sales and royalty reports, 1962-1970

Annual chemistry/HCB reports to the university president, 1983-1995

HCB publications, numbers 1200-1264 (HCB's oral history, #1203)

Manuscript of The Nonclassical Ion Problem, 1976

Article, "The Development of a Truly General Asymmetric Synthesis", ca. 1986

Correspondence regarding proposed Nobel Laureate book to which HCB agreed to contribute, 1986

Correspondence regarding the establishment of the HCB Center for Borane Research at Purdue University

#### **Box 87**

Work files, 1982-2000

Patent materials and manuscript chapters, 1982-2000

Application drafts and revised drafts, patents pending, pertinent correspondence, and applications granted, letter from HCB to Charles Brown regarding patents, chapters of *Organic Synthesis* 

#### **Box 88**

Work files, circa 1960s-1980s

Literature searches, HCB paper, a student travel memoir, circa 1960s-80s

## **Box 91 OVS** Contents: Oversize Materials

Work and student files, 1938-1991

Patents, security clearance documents, and government documents regarding secret defense projects on High Energy Fuels (now declassified, unrestricted)

Student journals from University of Chicago

Manuscripts by HCB

Brown's personal security questionnaire for participation in preparation of volatile compounds of uranium, 1942

Journals from two female students in Chem 438 at University of Chicago, 1942 Correspondence and copies of patent applications/patents, 1950-1970s Manuscript and bound research reports by HCB and Swansea scientists, 1987

## **Box 92**

Work files, 1949-1996

Patent cases, 1987-1994 Printed patents issued 1949-1964 Merck self-publicity book, 1968 Bound book of cases, 1990-1992; one patent issued 1996

## Box 93a

Work files, 1955-2000

Correspondence between HCB and Purdue President Frederick Hovde about intellectual property and the Purdue Research Foundation policy Consulting records

Patent correspondence (some involving Schlesinger)

#### Box 93b

Work files, 1963-1977

Original drawings of Brown's gasimeter

Papers regarding rights to manufacture both the gasimeter and boranes, primarily correspondence with different manufacturers exploring the possibilities of production

Catalogs for chemical production and glass

## **Box 94**

Work files, 1994-2004

Army Science and Technology and Master Plan(s), 1994-1996

Distribution notice/list and individual correspondence files for distribution of HCB tribute book, some research materials from Brownians, 1995-2004

## **Box 95**

Books, 1970-1975, 1986, 1991-1993

Series on modern synthetic methods, a biography, conference proceeding, a Japanese comic book, a career retrospective, and organic chemistry books

#### **Box 96**

HCB-led dissertations, 1967-1971

+Indiana Academy of Science Proceedings, 1968

## **Box 97**

Patent applications and correspondence, 1986-1992

Dissertation by Paul vR. Schleyer, Harvard, 1956

Manuscript box, "Army Symposium," 1995

"Organic Synthesis via Boranes, vol. 3," manuscript by HCB and Akira Suzuki Correspondence between HCB and assorted scientists regarding Norbornyl problem, 1974; two masters and one doctoral thesis from University of Manchester, England students, 1969-1972

#### **Box 99**

Work files, 1984-2003

Final reports, assorted bound borane topical reports/seminars

Nomination papers for Akira Suzuki for Nobel, 2003 **Restricted** and moved to box 117

Bound volume of *Chemical and Engineering News* in which HCB was listed in top 75 contributors in world and related news stories/ biography by Sarah Brown, 1998

Abstracts, 2003

White House invitation, declined

HCB lecture series programs, 1984-2003

Partial manuscript, "Organoborane Synthesis via Boranes, volume 3"

## **Box 100**

Dissertations of HCB students, 1973-1975

Manuscript boxes containing borane royalty records, 1972-2000

#### **Box 101**

Reprints of HCB's article #1246, dated 2000

#### **Box 102**

HCB-led theses, Manchester, 1970-1974

Army Jr. Science Symposium Materials, 1995

#### **Box 103**

Books on assymetric reactions, 1971-1993

## **Box 104**

Work correspondence, 1957-2002

#### **Box 105**

HCB-led dissertations, 1975-1979

#### **Box 106**

Reprints of HCB's article #1227, dated 1998

### **Box 107**

Handwritten manuscript, typescript, galley proofs for Organic Synthesis via Boranes, undated

Reprints of journal articles written by HCB, number 1223, undated

## **Box 109**

Reprints of HCB's article #1226, dated 1998

#### **Box 110**

Work files, 1973-1974

Handwritten original plans for gasimeter

Draft manuscript of organometallic reagents book and galley proofs

Lab preps handwritten, lab procedural materials

#### **Box 111**

Leather portfolio filled with work and personal files, circa 2001

Personal correspondence

Travel itineraries

Marketing materials

Charitable organization appeals

Speaking invitations

Trade journals

Aldrich correspondence regarding patents, royalty designation, support of Purdue Chemistry Department

National Science Foundation reviews

2001 American Chemical Society national meeting plans (Chicago), program, bound abstracts, and travel plans

Encomium to HCB by Derek A. Davenport, introductory speech by Sarah B. Brown for Davenport

Materials regarding 2001 Nobel Laureate Centennial

## **Box 112**

Final reports, manuscript, and working papers, also patent information, 1964-2001

Copies of journals

Correspondence

Three final reports (2001)

Organic Synthesis via Boranes, Volume 3, by Akira Suzuki and HCB

#### **Box 113a**

HCB's notebooks, circa 1940s

Notebooks contain research and publication plans, lists of publications sent out, lists of research grants

#### **Box 113b**

Lab notebooks by HCB's students at Wayne State and Purdue University, circa 1940-1950s

Books, HCB publications, and HCB outlines, 1936-1993

Assortment of symposia, journal, and biographical/reference books, a volume of *Boranes in Organic Chemistry*, an untitled volume on hydroboration Handwritten lecture outlines and notes on resonance, non-classical ion outlined, steric strains, boranes

## **Box 115**

Work files, 1969-1972

The Non Classical Ion Problem manuscript and individual chapters General work files, chemical periodical, 1969

## **Box 116**

Two brief cases with files

## **Box 117 RESTRICTED Materials**

Employment papers and materials

Transcripts of HCB's testimony in the Lilly Prozac/Barr case (from box 79)

Nomination papers for Akira Suzuki for Nobel, 2003 (From box 99)

Project HEF (high energy fuel), 1956-1957; Project ZIP, 1953-1959 some copies signed by HCB (From box 216)

Nominations materials for Suzuki, Negishi, et al., ca. 2003 (From box 343)

Work files, periodicals, loose papers, 2001-2002

Correspondence, travel materials, newsletters, miscellaneous articles Marketing materials, journals, popular news magazines, advertising material

#### **Box 118**

Typewritten, proofread galleys of Organic Synthesis via Boranes, 1974

## **Box 119**

Holiday correspondence, 2000-2001

#### **Box 120**

Work files, 1973-2004

Royalty records, 2001-2004

Symposium information, correspondence, travel information, photos

Thesis, final report by HCB students

HCB publication, Chemistry of Organoboranes

Photos of HCB's students at OMSCO symposium, 1995

#### **Box 121**

Work files, ca. 2000

Publications, HCB's articles #1200-1300

Ne

gishi manuscript, 2000

Lecture slides, 2000

Correspondence Aldrich research reports

#### **Box 122**

Articles written or co-authored by HCB, #1101-1200, dated 1991-1996 HCB-led dissertations, 1955

## **Box 123**

Work files, 1970-1994

Bound Purdue Organic Seminar materials, 1972-1990 Final Reports, 1977-1994 MA thesis from Manchester student, 1970

## **Box 124**

Work files, 1955-1975; 2002

Lab reports from Wayne State student working on olefins Lab reports by Subba Rao on hydride reductions, March 1955-March 1975 Correspondence, memorabilia, 1955-1960s (includes one 2002 ACS publication) Correspondence with German professor Walter Hückel

#### **Box 125**

Box of assorted materials, 1995-2003

Multiple copies of "Sixty Years" handout

Assorted science periodicals

Research reports

Departmental materials (directory, announcement, etc.)

Negatives and slides for humorous commemorative HCB mug

Aldrich royalty reports from three quarters in 2003

Correspondence, travel records, and speech from ACS meeting in Chicago, 1995

#### **Box 127**

PhD theses overseen by HCB, 1949-1952, 1976-77

## **Box 128**

Final Reports by HCB students, including one handwritten one by Negishi, 1952-1995

#### **Box 129**

Work files, 1995-2001

**Publication submissions** 

Business and personal correspondence

Bulletins from chemical companies

Research article reprints

Newspaper clippings

Professional organization publications

Travel papers

Post-doctoral letters of application

Symposia papers Borane Center plans

#### **Box 130**

Work files, 1978-2002

Business and personal correspondence

Research articles and periodicals, popular and scientific

Coworkers publications list

Slide printout (comb-bound)

Publication request letters

Newspaper clippings

Chemistry text book

Speaking invitations

Nobel Jubilee papers

Revision requests

Conference registration materials and itineraries

University wide and departmental communications

Photographs of HCB and bust of his likeness

Royalty projections and valuations

#### **Box 131**

Work files and publications, 1950-1998

Final reports, 1976-1985

Masters and doctoral theses, 1976

Assorted books on science and math-related topics, 1950-1998

Bound literatire review/research report on organoboranes by Welsh students

American Chemical Society's "Luminaries of the Chemical Sciences," 2002

Industrial brochures on aluminum alkyls in organic synthesis, 1969-1978

Complimentary research report by David Ginsburg, 1975-1980

Experts'reports (which HCB answered for Lilly) regarding disputed patent issues over fluoxetine between Eli Lilly and Barr Laboratory, 1998 Note: check to see if

needs to be restricted]

## **Box 132**

Work files, circa 1993-1994

Correspondence

Research proposals

Reviews by HCB

Works in progress

Lists of publication plans

Slides

Final reports

Research articles

Departmental memoranda

#### **Box 133**

Work files, circa 1977-1990

Research reports

Bound topical literature reviews

Engineering periodical

Articles about borane research

Handwritten letters (includes 40-page NIH rebuttal in HCB's hand)

## **Box 134**

Two leather portfolios containing working files, 1997-2000

#### **Box 135**

Work files, 1960 - 2000

Manuscript (with corrections) of Organic Synthesis via Boranes, volume 3

Patents, bill of patent sale (to Aldrich), legal papers concerning Aldrich's agreement for patent use, Aldrich technical papers ca. 1960s-70s

Research articles

Symposium reports

Journals (including Middle East peace journal), books

Presentation slides (paper copies)

Bound reviews

Bound manuscript

Progress reports, circa 2000

## **Box 136**

Work files, 1963-1997 [bulk 1990s]

Itineraries and travel correspondence, 1963-1997

Dissertations, publications (including one written by C.F. Lane, Aldrich chief, one anti-apartheid letter soliciting HCB support as Nobel Laureate), 1967-1992

Final reports, 1978-1979

Index cards listing HCB publications accepted and submitted

Text, Essential Organic Chemistry for Students of the Life Sciences, inscribed by Welsh co-author to HCB and Sarah Brown, 1980

Assorted research literature, conference programs

Page proofs by HCB (Nonclassical Ion Problem manuscript)

Lectures

## **Box 137**

College texts, lab notebooks, and 16mm film, 1928-1960 fragile

HCB's notebooks from Crane Junior College, City College Chicago, Wright Jr.

College, Lewis Institute

Riva Brown's early college notebook

HCB's rhetoric and composition notebook

Graded essays, 1925-1938

Film reel labeled "HCB CON1; Classroom - #138 - 2/27/60 - #383 Chemistry/ Air (?),4/27/60," film shot by NBC of HCB in classroom, 1960

Work files, 1989-1994

A-D files, 1992-1994

Office of Naval Research correspondence

Recommendation requests

National Academy of Sciences and National Science Foundation publications

Personal correspondence

Research notes, projects, and interests

Borane Research Fund records

**Patents** 

Grants

Aldrich correspondence and quarterlies

## **Box 139**

Work files, 1988-1994

Research article reprints

Personal, departmental, and professional correspondence

Award nominations

Newsletters

Photograph of HCB at a conference

**Journals** 

Current manuscript/publications

Newspaper clippings and newspapers

Progress reports

Travel itineraries

Speaking invitations

## **Box 140**

Two canvas portfolios, 1998; 2002

"BankOne" portfolio, 1998

Work papers

Business and personal correspondence

Newsletters, scientific articles, periodicals

"Concourse" portfolio, 2002

Work papers

Business and personal correspondence

Certificate of long life printed in gold

Publications in progress

Periodicals

Biographical monograph

## **Box 141**

Work and personal files, 1981-1998

Personal correspondence, e-mail, Purdue memos

Travel literature and itineraries

Newspaper clippings, newsletter

Research applications (proposals/renewals)

Trade magazines, professional affiliations materials

Departmental and faculty memoranda

Refereed reports of HCB publications and by HCB for journals

Photos of HCB research group, 1992

Slides and slide presentations

Photocopied blueprints, Westminster, lot #15

Records of Organic Cumulative exams

Photocopied group photos of HCB groups outside Wetherill

## **Box 142**

Work files in two tote bags, 2002-2003

Correspondence

Magazines

Slide programs (on paper)

Itineraries,

Symposia brochures and invitations

Report of quarterly royalties from Aldrich

## **Box 143**

Three portfolios, in 3 tote bags, 1994-2000

Current science reading (trade magazines)

Personal and professional correspondence

Slide printouts

Publication instructions and review materials

Manuscripts for editing

Research article reprints

Travel itineraries

Marketing materials

News articles

#### **Box 144**

Work files, 1972-1998

Personal and professional correspondence

Travel literature and itineraries

Departmental communications

Research accounting for government funded projects

Invitations, recommendations, reading folder

Symposia notices

Lists of publications 1991-1996

Reprint request

Financial Summary Status Report

Writings by Alfred Bader

Letter to Nina Roescher Chemistry Department management accounting reports History of first PRF project

## **Box 145**

Work files, 1994-1999

Project reports, progress reports

Business and personal correspondence

Research article reprints

Travel correspondence and itineraries

Manuscripts for publication

Royalty reports

Research funding reports

Patent research/verification correspondence

Research applications

Newsletters

Departmental memoranda

Poster session abstract

NIH proposals, grants

#### **Box 146**

Work files, 1992-1993

Correspondence

Travel itineraries

Research manuscripts

Colloquium brochures

Seminars

Son 21 celebration

Former students

#### **Box 147**

Books, 1980 - 2003

Debris, 1980

Who's Who in Scientific Engineering, 1992-93 & 2002-03

Who's Who in the World, 1991-92

Who's Who in America, Vols. 1-3, 1999

#### **Box 148**

Reprints of HCB's journal articles #651-1200, dated 1976-1996

#### **Box 149**

Two leather portfolios containing work files, circa 1997-2001

"Trips and Lectures in Progress" portfolio, circa 2000-2001

Trade journals, correspondence, popular news magazines, professional organization materials, financial and charity memoranda, research group lists, publications, travel itineraries, tickets, etc.

"Hydroboration" portfolio, circa 1997-2001

Trade journals, travel information, bound abstract, popular magazines, correspondence, softbound biography inscribed to HCB by colleague, manuscripts in submission, reprints of research reports, reprint order forms, 1997 draft in HCB's hand "Improved Procedures for the Generation of Diborane" and subsequent publication, registration papers for 2000 meeting of Nobel Laureates in Lindau, Germany, etc.

#### **Box 152**

Work files and article reprints, 2001-2003

Typed manuscript by Swansea authors, undated

Reprints of article #1191, undated;

Personal correspondence (with Charles Brown, estate consultants, etc.)

Congratulations on HCB's 90<sup>th</sup> birthday

Centennial Nobel celebration

Newspaper clippings

Business correspondence

Annual report

#### **Box 153**

Two leather portfolios containing work and personal files, circa 1995-1998, 2000-2001 Portfolio with brown handle, 1996-1997

Personal and business correspondence

Army Research Office progress reports

**HCB** publications

In-process manuscripts

Itineraries

Trade publications

Marketing brochures

Solid black portfolio, 1997-2000

Personal and business correspondence

Army Research Office progress reports

**HCB** publications

In-process manuscripts

**Itineraries** 

Trade publications

Marketing brochures

Recruitment of Akiro Suzuki for volume 3

Photos of HCB and Sarah Brown taken by Suzuki at 90<sup>th</sup> birthday event

University of Chicago alumnus survey filled out by HCB and Sarah Brown

Letters of recommendation

Expert valuation papers for patent sales to Aldrich by HCB

Research proposals for HCB

Journal articles

Lecture notes and slides, circa 1970s – 1991

Binders with lecture notes

Correspondence between university and Sarah Baylen Brown Foundation indicating her financial contributions to preserving lectures

#### **Box 155**

Work files, circa 1970-1989

Paper printouts of slides on all aspects of Borane chemistry, by HCB

Slides and photographic negatives of slides

Histories of borane research by HCB, circa 1982

Bundled research reprints by Asian authors from international representation of chemical journals

Editorial reviews of HCB article submissions

Miscellaneous correspondence

#### **Box 156**

Reprints of journal articles written by HCB, 1986-1991

Partial manuscript of *Organic Synthesis Via Boranes*, Volume II, Chapters 7-8 sent to HCB from Mavek Zaidlewicz in Poland

Four videos of different lectures in the HCB Lecture series, 1986

#### **Box 157**

Dissertations, 1972-1973

Ravindran, Nair N. Chloroboranes as new Reagents for Hydroboration and Selective Reductions, August 1972

Schubert, Richard Mark. Solvolysis of and Additions to Benzonorbornen-2-YL

Derivatives Containing Deactivation Substituents in the Benzo Portion of the Molecule, January 1972

Sivaram, Swaminathan. Structural and Solvent Effects in the Solvolyses of Secondary  $\beta$ -Arylalkyl Arenesulfonates, January 1972

Buhler, Jerry Dean. New Alkylation Reactions of Organoboranes, December 1973

Burke, Patrick Lee. Cyclic Hydroboration of Dienes, May 1973

Carlson, Bruce Arne. The Base-Induced Reactions of Trisubstituted Methanes with Organoboranes, December 1973

#### **Box 158**

Reprints of research articles by HCB, #102-106, 1113-1115, 1117-1118, 1124-1125, 1127, 1028, 1030-1032, 1135-1136, 1145-1146, undated

Boranes in Organic Chemistry, chapters 12-20, and extra copies of figures in BIOC

#### **Box 159**

Lecture notes and slides, circa 1970s

### **Box 160**

Reprints of journal articles written by HCB, # 1128-29, 1131, 1150-1151, 1153-1154, 1162-1166, dated 1992-1994

Slide printouts of lectures, including Nobel Lecture, norbornyl slides, organoboranes A-Z, hydroboration of acetylenes, nonclassical ion problem (3 versions), circa late 1970s-1983

#### **Box 161**

Two leather portfolios containing work and personal files, circa 1980s–1996 Manuscript, *Organic Synthesis via Boranes*, Volume 2, 2001 Correspondence between HCB and his sister

## **Box 162 OVS Contents: Oversize Materials**

Partial manuscript, printed books, and boxes of journal reprints by HCB, 1995-2000 *Organic Synthesis of Boranes*, partial manuscript of the book (chapters 1-6) Reprints from journal articles, 1995-1999

#### **Box 163**

Two leather portfolios containing work files, 1995-1996

## **Box 164**

Manuscripts, duplicate copies of vol. II, *Organic Synthesis via Boranes* Leather portfolio containing work files, 1988-1995

Research group memoranda

University annual report

Graduate school recruitment brochure

Research article manuscript for publication

Various university and departmental publications, memos, newsletters

Scientific journals

Correspondence with National Institutes of Health

## **Box 165**

Work files, 1989-1996

Black leather portfolio containing research articles, manuscripts for publication, professional and international correspondence, 1989-1993

Brown leather portfolio containing personal and professional correspondence, departmental memoranda, 1993-1996

## **Box 166**

Manuscripts, Organic Synthesis via Boranes, Volume II Work files, 1977-1993

Research work on boranes, hydrologation, hydroboration

Correspondence regarding computer equipment recommendations for Chemistry Department at Purdue

### **Box 167**

Work files, 1990-1992

Work files and periodicals, 1968-1993

M-Z hanging file folders, 1968-1982

Correspondence, research reprints, articles for publication, manuscripts Unlettered hanging file folders, 1991-1992

Aldrich chemical lists, HCB royalty records

Various technical bulletins, magazines, publications, correspondence, brochures of socio-political issues, stereoscope, departmental abstracts, science journals, 1985-1993

## **Box 169**

Final Reports, B-G, circa 1980-1995

#### **Box 170**

Bound final reports by HCB's students, names ending in G-K, 1954-2001

#### **Box 171**

Original, bound copies of final research reports, K-M, circa 1960s-1992

Reports submitted to HCB by postdoctoral fellows and research assistants with names ending in K, L, and M

#### **Box 172**

Final Reports submitted to HCB by postdoctoral fellows and research assistants with names ending in P-R, 1966-1994

## **Box 173**

Final Reports, letter S, by HCB's students, 1961-1999

# **Box 174**

Final Reports submitted to HCB by postdoctoral fellows and research assistants with names ending in R-Z, 1954-1997

Details of resolution of problematic researcher by HCB

#### **Box 175**

Work files and book, 1979-2001

Final Reports

Book of 1979 Nobel Prize winners

#### **Box 176**

Reprints of publications about HCB in various Purdue outlets and loose materials, 1978-2000

Newsletters, correspondence, departmental communications, trade and popular magazines, trade association news publications, Purdue science retrospective Fujita Museum 1985 calendar with charcoal drawing of HCB by R. Rao taped to front

Periodicals, news articles featuring HCB, 1979-2000 Magazines, journals, newspapers, campus directories featuring HCB

#### **Box 178**

Programs from the HCB Lecture Series, 1996-2005

#### **Box 179**

Programs from HCB Lectures in Organic Chemistry programs, 1984-1995 [incomplete: 90, 95 not there]

#### **Box 180**

Books authored by or relating to HCB, 1962-1982

Published lectures given in England, Czechoslovakia, Rome, Korea Remembering HCB
Men of Achievement, 1974

#### **Box 182**

Card catalogues of HCB publications and index box of Final Reports, circa 1950s-1970s Conference proceedings, bound lectures from National Academy of Sciences, assorted journals, 1955-1977

## **Box 183**

Boxed laboratory equipment, circa 1964

This box contains one Brown<sup>2</sup> Micro Hydro-Analyzer

## **Box 184**

Boxed laboratory equipment, circa 1964

## **Box 185**

Boxed laboratory equipment, circa 1964

This box contains one Brown<sup>2</sup> Micro Hydro-Analyzer with an instruction booklet, "Operating Instructions for the Brown<sup>2</sup> Hydro-Analyzer," undated

#### **Box 186**

Boxed laboratory equipment, one stirrer, undated

## **Box 187**

Shelf 14.5

Reprints HCB-led dissertations, 1946-1951

#### **Box 188**

Dissertations of HCB's students, 1941-1953 (includes first PhD that he directed)

Dissertations of HCB's students, 1952-1955

#### **Box 190**

Dissertations of HCB's students, 1956-1966

## **Box 191**

Dissertations of HCB's students, 1956-1961

## **Box 192**

HCB-led dissertations, 1955-1956, 1961-1962, 1965-1966

#### **Box 193**

PhD theses overseen by HCB, 1962-1964, 1967-1968

## **Box 194**

Dissertations of HCB's students, 1967-1969, 1972-1973

#### **Box 195**

Dissertations of HCB's students, 1970, 1972-1975, 1978

#### **Box 196**

Dissertations of HCB's students, 1952-1953, 1955, 1973, 1975-1976, 1978

#### **Box 197**

Dissertations of HCB's students, 1972, 1976-1977, 1979, 1981-1982

## **Box 198**

PhD theses overseen by HCB, 1964, 1966-1968, 1967-1968, 1970-1972

#### **Box 199**

Two plastic carrying cases of lab apparatus, undated

## **Box 200**

HCB's books, 1971-1976

Hydroboration (with Charles Brown inscribed in front)
The NonClassical Ion Problem
Boranes in Organic Chemistry
Organic Synthesis via Boranes

#### **Box 201**

Reprints of journal articles written by HCB, #1-11, 1938-1940

Reprints of journal articles written by HCB, #12-21, 1941-1942 Organic Synthesis via Boranes

## **Box 203**

Reprints of journal articles written by HCB, # 22-32, 1942-1945

## **Box 204**

Reprints of journal articles written by HCB, #33-43, 1945-1948

### **Box 205**

Reprints of journal articles written by HCB, #44-54, 1948-1950

## **Box 206**

Reprints of journal articles written by HCB, #55-63, 65, 1950-1951

#### **Box 207**

Reprints of journal articles written by HCB, #64, 66-74, 1951-1953

#### **Box 208**

Reprints of journal articles written by HCB, #75-84, 861953

#### **Box 209**

Reprints of journal articles written by HCB, #85, 87-95, 97, 1953

#### **Box 210**

Reprints of journal articles written by HCB, #96, 98-106, 108, dated 1953-1954

#### **Box 211**

Reprints of journal articles written by HCB, #107, 109-118, 1954-1955

## **Box 212**

Reprints of journal articles written by HCB, #119-126, 128-129,1955

#### **Box 213**

Reprints of journal articles written by HCB, #127, 130-139, 1955-1956

## **Box 214**

Reprints of journal articles written by HCB, #140-150, 1956

#### Box 215

Reprints of journal articles written by HCB, #151-160, 1956

#### **Box 216**

Various publications and reports, 1953-2001 Biographical tributes to HCB, 1978-2001

Classified reports from the Department of the Navy on secret projects.

**RESTRICTED**. Moved to Box 117

Project HEF (high energy fuel), 1956-1957

Project ZIP, 1953-1959 some copies signed by HCB

HCB publications, #301-500; 801-900, dated 1963-1971, 1981-1983

#### **Box 217**

Lectures, slides, and speeches given by HCB, 1980-1990 HCB Lecture bulletins, 2002 HCB's senior high school scrapbook, 1928-1929

### **Box 218**

Two brief cases.

## **Box 219**

Reprints of journal articles written by HCB, #`9`, 200, 1958

## **Box 220**

Reprints of journal articles written by HCB, #203-207, #209-210, 1959

#### **Box 220a**

Article reprints #12, #201,# 202, #212 and a galley proof entitled *Organic Synthesis Via Borbanes* 

# **Box 221**

Reprints of journal articles written by HCB, 1957-1958

## **Box 222**

Reprints of journal articles written by HCB, #171-178, 1957

#### **Box 223**

Reprints of journal articles written by HCB, #161-170, 1956-1957

## **Box 227**

Reprints of journal articles written by HCB, #208, 211-221, 1959

#### **Box 228**

Reprints of journal articles written by HCB, #222-226, 229-234, 1959-1960

#### **Box 229**

Reprints of journal articles written by HCB, 1960-1961

## **Box 230**

Reprints of journal articles written by HCB, #243, 245-252, 255-256, 1961

#### **Box 231**

Reprints of journal articles written by HCB, #259-267, 269, 1961-1962

## **Box 232**

Reprints of journal articles written by HCB, #257-258, 268, 271-278, 1961-1962

#### **Box 233**

Reprints of journal articles written by HCB, #253-254, 279-288, 1961-1962

#### **Box 234**

Reprints of journal articles written by HCB, #284, 289-294, 297-300, 1963-1964

#### **Box 235**

Reprints of journal articles written by HCB, #295-296, 301-309, 1960s

#### **Box 236**

Reprints of journal articles written by HCB, #310-320, 322, 1964

## **Box 237**

Reprints of journal articles written by HCB, #321, 323-333, 1964-1966

#### **Box 238**

Reprints of journal articles written by HCB, #331, 334-346, 1965-1966

#### **Box 239**

Reprints of journal articles written by HCB, #342-343, 346-354, 1966

#### **Box 240**

Reprints of journal articles written by HCB, #366-376, 1967

#### **Box 241**

Reprints of journal articles written by HCB, #366-376, 1967

#### **Box 242**

Reprints of journal articles written by HCB, #377-387, 1967

## **Box 243**

Reprints of journal articles written by HCB, #388-398, 1967-1968

#### **Box 244**

Reprints of journal articles written by HCB, #399-409, 1968

#### **Box 245**

Reprints of journal articles written by HCB, #410-420, 1968

### **Box 246**

Reprints of journal articles written by HCB, #421-431, 1968-1969

Reprints of journal articles written by HCB, #432-441, 443, 1969

## **Box 248**

Reprints of journal articles written by HCB, #442-455, 1969

## **Box 249**

Reprints of journal articles written by HCB, #453-463, 1969-1970

## **Box 250**

Reprints of journal articles written by HCB, #466-476, 1970

## Box 251

Reprints of journal articles written by HCB, #483 486-491, 493-496, 1970-1971

#### **Box 251b**

Reprints of journal articles written by HCB, 452, 493 and 496

#### **Box 252**

Reprints of journal articles written by HCB, #474, 477-482, 484, 492, 494-495, 1970-1971

#### **Box 253**

Reprints of journal articles written by HCB, #497-507, 1971

## **Box 254**

Reprints of journal articles written by HCB, #508-517, 519, dated 1971

#### **Box 255**

Reprints of journal articles written by HCB, #518, 520-529, 1971-1972

## **Box 256**

Reprints of journal articles written by HCB, #530-538, 540-541, 1972

#### **Box 257**

Reprints of journal articles written by HCB, #539, 542-549. 551-552, 1972

## **Box 258**

Reprints of journal articles written by HCB, #550, 553-558, 560-563, 1972

#### Box 259

Reprints of journal articles written by HCB, #559, 564-572, 574, 1973

#### Box 259a

Reprints of journal articles written by HCB, 585, 596, 733-35

Reprints of journal articles written by HCB, #572-583, 1973

## **Box 261**

Reprints of journal articles written by HCB, #586-594, 1973

#### **Box 262**

Reprints of journal articles written by HCB, #595, 597-604, 606, 1974

#### **Box 263**

Reprints of journal articles written by HCB, #605-615, 1974-1975

#### **Box 264**

Reprints of journal articles written by HCB, #617-627, 1975

## **Box 265**

Reprints of journal articles written by HCB, #628-639, 1975

#### **Box 266**

Reprints of journal articles written by HCB, #640-651, 1975-1976

## **Box 267**

Reprints of journal articles written by HCB, #652-663, 1976

## **Box 268**

Reprints of journal articles written by HCB, #664-675, 1977

## **Box 269**

Reprints of journal articles written by HCB, #676-685, 1977

## **Box 270**

Shelf 21.6

Reprints of journal articles written by HCB, #689-699, dated 1977

#### **Box 271**

Reprints of journal articles written by HCB, 1977-1978

# **Box 272**

Reprints of journal articles written by HCB, #700-711, 1978

#### Box 273

Reprints of journal articles written by HCB, #724-732, 736-758, 1978-1979

#### **Box 274**

Reprints of journal articles written by HCB, #736-746, 1979

Reprints of journal articles written by HCB, #747-758, 1979

#### **Box 276**

Reprints of journal articles written by HCB, #759-767, 769-780, dated 1979-1980

#### **Box 277**

Reprints of journal articles written by HCB, #768, 771-781, dated 1980

#### **Box 278**

Reprints of journal articles written by HCB, #782-792, 1980-1981

#### **Box 279**

Reprints of journal articles written by HCB, #793-804, 1981

## **Box 280**

Reprints of journal articles written by HCB, #805-816, 1981

#### **Box 281**

Reprints of journal articles written by HCB, #817-828, dated 1981-1982

## **Box 282**

Reprints of journal articles written by HCB, #829-840, 1982

## **Box 283**

Reprints of journal articles written by HCB, #841-851, 853, 1982

## **Box 284**

Reprints of journal articles written by HCB, #852, 854-864, 1982

## **Box 285**

Reprints of journal articles written by HCB, 1982-1983

## **Box 286**

Reprints of journal articles written by HCB, #865-876, 1983

#### **Box 287**

Reprints of journal articles written by HCB, #888-898, 1983

#### **Box 288**

Reprints of journal articles written by HCB,#899-910, 1983-1984

# **Box 289**

Reprints of journal articles written by HCB, #911-922, 1984

#### **Box 290**

Reprints of journal articles written by HCB, #923-934, 1984

# **Box 291**

Reprints of journal articles written by HCB, #935-946, 1984-1985

#### **Box 292**

Reprints of journal articles written by HCB, #947-956, 958, 1985

#### **Box 293**

Reprints of journal articles written by HCB, 1985

#### **Box 294**

Reprints of journal articles written by HCB, 1985-1986

#### **Box 295**

Reprints of journal articles written by HCB, #969-978, 1986

## **Box 296**

Reprints of journal articles written by HCB, #989, 993-1002, 1986

#### **Box 297**

Reprints of journal articles written by HCB, #1003, 1009, 1016, 1019, 1986

#### **Box 298**

Reprints of journal articles written by HCB, #1004-1008, 1020-1025, 1986-1987

#### **Box 299**

Reprints of journal articles written by HCB, #1026-1036, 1987

# **Box 300**

Reprints of journal articles written by HCB, #1037-1048, 1987-1988

#### **Box 301**

Reprints of journal articles written by HCB, #1049-1058, 1988

## **Box 302**

Reprints of journal articles written by HCB, #1059-1070, 1988-89

#### **Box 303**

Reprints of journal articles written by HCB, #1071-1082, 1989

#### **Box 304**

Reprints of journal articles written by HCB, #1083-1094, 1989-1990

## **Box 305**

Reprints of journal articles written by HCB, #1095-1106, 1990-1991

Reprints of journal articles written by HCB, #1107-1118, 1991-1992

## **Box 307**

Reprints of journal articles written by HCB, #1119-1128, 1130, 1992-1993

## **Box 308**

Reprints of journal articles written by HCB, #1129, 1131-1141, 1992-1993

## **Box 309**

Reprints of journal articles written by HCB, #1142-1150, 1993-1994

#### **Box 310**

Reprints of journal articles written by HCB, #1154-1165, 1994

#### **Box 311**

Reprints of journal articles written by HCB, #1166-1173, 1994-1995

#### **Box 312**

Reprints of journal articles written by HCB, #1178-1188, 1190, 1995

## **Box 313**

Reprints of journal articles written by HCB, #1189, 1191-1202, 1996

#### **Box 314**

Reprints of journal articles written by HCB, #1129-1213, 1996-1997

## **Box 315**

Reprints of journal articles written by HCB, #1214-1225, 1997-1998

#### **Box 316**

Reprints of journal articles written by HCB, #1226-1237, 1998-1999

## **Box 317**

Reprints of journal articles written by HCB, #1238-1247, 1250, 1999-2000

#### **Box 318**

Reprints of journal articles written by HCB, #1248-1249, 1251-1256, 1258-1261, 2001-2002

#### **Box 318a**

Reprints of journal article #874, 875, 887, 1017, 1018, 1151, 1153

## **Box 319**

Reprints of journal articles written by HCB, #1262-1266, 1268-1270, 2002-2003

Articles reprints for 208 and 221 (2959)

## **Box 321**

Reprints of Aldrich HCB 75th, 1987 Aldrich flyers marketing HCB reagents, 1997

## **Box 322**

Manuscripts and various periodicals, circa 1987-1999 *Aldrechimica Acta*, 1987 *The Purdue Alumnus*, November-December 1999

## **Box 323**

Reprints of Remembering HCB, 1978

## **Box 324**

Patents (U.S. & Canadian) granted HCB, circa 1950-1980s Lecture slides, circa 1970-1980s

## **Box 325**

Reprints of journal articles written by HCB, 1990-1991

# Series 3: Memorabilia and Artwork (Items Donated by Charles B. Brown, 1930s-2002)

(26 cubic feet)

Universitas Nicolai Copernici, 1998 [in case, with accompanying CD-ROM on Nicholas Copernicus University]

Portfolio (Italian paper), portraits of HCB, Sarah B. Brown, Chips ('45), undated

#### **Box 326**

Medals, 1976-2000

Ambassador's Circle, World Jewish Congress, presented in honor of exceptional commitment to the protection of Jewish communities around the world, undated

"Purdue University, A Tribute to President and Mrs. Steven C. Beering," May 1, 2000

Plaques, 1968-2002

Gooch-Stephens Lectures, Baylor University, 1975

Science Society of Thailand, 1985

Purdue President's Council, Hovde Fellow, signed by Steven Beering, undated

Purdue President's Council, Distinguished Fellow, signed by Stephen Beering, undated

Ninetieth Birthday, Herbert C. Brown, from the Aldrich Chemical Company, May 22, 2002

"Adventures in Research," California State University, 31<sup>st</sup> commencement, Long Beach, California, May 30, 1980

"Asymmetric Syntheses via Chiral Organoboranes," DuPont-Marshall Lectureship, University of Pennsylvania, October 22, 1987

Purdue University logo plaque, undated

"Men of Achievement," undated

R.P. Sherer Chemistry Lecturer," University of South Florida, 1985

"Ritter-Brill Memorial Lecture," Miami University, 1987

"An Indiana Legend," Purdue Ag Alumni Association, Ag Fish Fry, January 13, 1989

"Half-Million Miler," United Airlines, undated

Visit and Special Lecture, Khon Kaen University, October 30, 1985

Badges, Label, Paperweights, Plates and Platters, 1971-1992

Cliff S. Hamilton Award, Organic Chemistry, commemorative paperweight, undated

Semicentennial, Texas Technological University, commemorative paperweight, 1973-1975

Name badge, "Herbert C. Brown, Chemistry 1979" [presumably related to receipt of Nobel Prize; "Stockholm" appears on back of pin]

Label, "Presented on December 8, 1979 to HCB in Stockholm by the Mosaiska

# Formsamlingen"

HCB's 90<sup>th</sup> Birthday, from Uma and B.C. Subbarao, April 2, 1992 "Happy Anniversary Sarah and Herbert Brown, 1937-1987" [24 K gold Electroplate]

#### **Box 327**

Clothing

Academic Robe, undated

#### **Box 328**

Clothing, Academic Hoods, undated

Ball State (Crimson/Gold/Black), undated

Butler University (Royal Blue/Gold/White), undated

Longinsylvanae Universitas (Lt. Green/Gold/Black), undated

Wayne University (Gold/Black), undated

## **Box 329**

Clothing, Academic Hoods, 2002, undated

No. Illinois State (Crimson/Gold/Black), May 12, 2002

Unlabeled (Black/Gold/purple/blue)

#### **Box 330**

Clothing, Academic Hoods, undated

Purdue [unlabeled] (Gold/Black), undated

Unlabeled (Blue/Gold Black), undated

Unlabeled (Blue/Gold/Black), undated

#### **Box 331**

Clothing, shirts, ca. 90s

Sweatshirt, Herbert C. Brown Family, ca. 1990s

T-shirts, 1997; undated

East Carolina Chemistry

Boron Bonds Better

Boron: A Good Start

Charter Son Of Boron

The Only Way to Hydroborate

Better Chemistry Via Boranes—Celebrating 50 Years of Boron

Research at Purdue, 1947-1997 (L/XL/XXL 3 shirts)

Cloth Suitbag

#### **Box 332**

Photographs, 1928-2002

Historical photographs from University of Chicago, ca. 1930s:

Dr. Stieglitz

Student in Chemistry Lab

Univ. of Chicago Chemistry Bldg. (two views)

HCB at blackboard teaching Hydride Reductions, ca. late 50s

HCB (holding model) with student in lab, 1953

HCB lecturing at podium, blackboard in background, ca. 1950s

HCB photographic portraits, undated (ca. 40s), 1953, 1958 (2), 1958 wallet sized photo with HCB signature on back

HCB holding glass apparatus in lab (2 prints), 1953

HCB (chalk in hand) with student at blackboard, 1958

HCB reading *Hydroboration* in office, undated (ca. 1960s)

HCB with Borohydride Project participants: Davis, Schlessinger, Boss, Finholt, Derderian, 1959

HCB and unidentified man in NBC's Continental Classroom, 1960

HCB portrait (b/w, 8x10), 1978

HCB photographic portraits (5x7, 4x5, 2x3 smaller two signed by HCB and undated), 1972, undated

HCB photographic portraits, color, 8x10 5 copies, ca. 1979

HCB photographic portraits, tinted (3), undated

HCB applauding student activity in class, Uppsala, December 13, 1979

Herbert C. Brown Receiving the Nobel Prize, Stockholm, Sweden, 1979

Herbert and Sarah Baylen Brown on Nobel ceremony stage with presenter, Dec. 10, 1979

HCB holding Nobel Prize and speaking, b/w, 8x10, 1979, separated from Box 53

HCB with Stephen Greenberg, Cosmetic Chemists, 1980

HCB in handshake with Wayne University faculty, the day he received an Honorary PhD, April 9, 1980

HCB at Show-You-Rest farewell lunch, October, 1983

Herbert and Sarah Baylen Brown at Lindau, 1980

HCB et al., at the ACS Awards Banquet, Priestley Medal, Atlanta, GA, 1981

HCB at Perkin Medal Award banquet (3 photos), February 12, 1982

HCB, Alan Selinasheim and Pres. Amer. Section of Society of Chemical Industry.

HCB and Alex-Lord Todd (sp?)

Alan Selinesheim making introductory remarks as HCB listens

HCB in the Archives Room (5 poses), Chemisty Building, January 11, 1982

HCB and cohort of Nobel Laureates from Univ. of Chicago alumni, 1991

HCB portrait by Paul May, San Jose, CA, undated

HCB, Lindau, 1992

HCB et al., in Swansea, Wales, for Honorary Fellowship award, 1994

HCB and another faculty in Swansea, Wales, 1994

HCB standing on dais of seated faculty, undated, photo by Buckingham Studios, Cardiff

HCB receiving honor (diploma), undated, photo by Buckingham Studios Cardiff

Herbert and Sarah Baylen Brown, Copernicus University, for award of honorary doctorate, 1998

HCB in office, ca. 2000, "With Best Wishes, Kanth" on label, Jan. 20, 2000

HCB and 90<sup>th</sup> Birthday Celebration attendees on Wetherill steps, May 22, 2002

Scrapbook contents from 80<sup>th</sup> Birthday of HCB, April 1-4, 1992 Printed program

> Typed Schedule of Events for Brown Symposium-Brown Lectures Printed invitation to Bader art exhibition at Union Gallery HCB with current and former associates on Wetherill Steps Four snapshots of HCB with smaller groups (partial identifications on reverse)

Three dozen snaphots of speakers at the occasion (ID on reverse) HCB at birthday banquet at the country club, April 4, 1997
Archival envelope of several dozen photographs of HCB and family used in publication of the "Sequel"

#### Box 333 above tissue in box:

Purdue Sigma Xi Society, certificate for Research Achievement, 1951 Certificates, pamphlets, clippings, and correspondence regarding the Harrison Howe Lectureship, 1953

McCormack-Freud Honorary Lectureship in Chemistry and Chemical Engineering, certificate, photocopy of news clipping, 1954

Indiana Academy of Science Fellow, 1958

Song lyrics about Brown, composed by HCB graduate student Donald J. Abraham, 1959

Awards program, American Chemical Society, Cleveland, OH, 1960 Honorary Doctor of Science degree, The University of Chicago, 1968 Program, reception for Herbert C. Brown, Recipient of the National Medal of Science, Purdue University, 1970

Document with Japanese signatures, in memory of Herbert C. Brown's visit to Japan, 1970

Photographic copy of Honorary Degree, Wayne State University, 1980 Herbert and Sarah Brown at the Lafayette Chamber of Commerce luncheon honoring HCB, 1980

Who's Who Certificate, 1980-1981

Sally Forth cartoon (relating to household duties), 1982

Certificate, Academia de Artes y Ciencias de Puerto Rico, 1982

Certificate, Honorary Membership, The Japan Chemical Society, 1982

Certificate, Honorary Membership, The Pharmaceutical Society of Japan, 1982

Exhibition brochure, photocopied biography, and color reproduction of Herbert C. Brown in company of Nobel Laureates, painted by Giovannella, ran April 3-June 9, 1985

Program, Ball State University commencement (includes photocopy of HCB's honorary degree from Ball State), 1985

Sleeved black and white reprint of Aldrichimica Act article dedicated

to HCB, 1987

Article, "What Do Nobel Laureates Dream About?" *Industrial Chemist*, Vol. 9, No. 8, August 1988 (includes HCB's opinion on the significance of his boron research)

Letter from J.C. Polanyi with speech by Polyani to incoming students at the University of British Columbia, 1989

HCB with current and former associates on steps of Wetherill Bldg., two laminated color copies of photograph, April 3, 1992

Certificate, Member of the Prometheus Society, 1996

Plaque photocopy, Boron Americas (BUSA) Award to HCB, Jan. 3, 2002

Advertisement, Nobel Laureates who published in American Chemical Society journals, undated

Printouts of cataloged HCB pieces, archival folder, March 14, 2006 Folder of photocopied Nobel Prize news clippings, letters, et al., ca. 1979

#### below tissue in box:

Bachelor of Science, The University of Chicago, June 16, 1936 Doctor of Philosophy, The University of Chicago, August 26, 1938 Maroon portfolio holding:

Men of Achievement, December 1973

Chemical Pioneer Award, The American Institute of Chemists, Inc., May 22, 1975

Certificate, Sagamore of the Wabash, State of Indiana, 1979 (2 copies)

Nobel Diploma: NobelPris, Stockholm, December 10, 1979 (copy on photographic paper has December 10, 1982, inscription handwritten on back (sic? or date of photographic copy?)

Chemical & Engineering News Journal, cover featuring
Brown: "Herbert C. Brown Wins 1981 Priestley Medal," July 7,
1980 (framed)

Purdue University, "Honorary Old Master," November 9, 1980 Universitas Longinsylvanae. Doctor Scientiae, June 6, 1980

Honorary Degree, Pontificia Universidad Catolica De Chile, 1980

Hebrew University of Jerusalem, *Doctor Philosophiae Honoris Causa*, February, 1980 (photo paper proof, 2 copies)

Purdue University, Doctor of Science, May 16, 1981 (photo paper proof and film negative)

Honorary Secretary of State, 1982

"Specialist" cartoon,

American Institute of Chemists Gold Medal, April 28, 1985

National Academy of Sciences Award in Chemical Sciences, April 27, 1987

## Paper folder:

American Academy of Arts and Sciences Fellow, May 11, 1966

(certificate of proclamation and printed notice of award)

#### Red binder:

Education Minister's Prize, jointly award HCB and Mark Zaidlewicz, Authors of "Organic Syntheses via Boranes," Torun, Poland, October 1, 2002

Publicity poster, Drexel University Distinguished Lecturer, May 19, 1980

Publicity poster, The Mack Memorial Lecturer, Purdue University Dept. of Chemistry, May 17, 1978

Japanese Calligraphy "You achieve success in many difficult tasks," June

1978 by Nichiyashu Ikegami (priest of Minobo Bhuddist Temple)

Set of Woodcut Prints of the Twelve Apostles, 1962

Calendars Stencil-Dyed on Japanese Paper by artist Keisuke Serizawa, 1972, 1975, 1976

Poster, Ancient Gems/New Settings exhibit, Noma Copley and Jean Stark, 1983

# Large clear archival bag:

Herbert C. Brown black and white portrait, signed J. Tong, 1972

Herbert C. Brown and three men, undated (note signed by Kulkarni attached)

Herbert and Sarah Brown in library-like setting, undated (b/w)

Herbert and Sarah Brown with man in office setting, undated (2 copies)

"Chips Hanley Marks," 1945 (young boy – Charles Brown?)

Herbert C. Brown and Sarah B. Brown individual color photographic portraits, undated (mounted on matboard, two copies of Sarah's portrait)

Herbert C. Brown Blackstone Studios b/w portrait, undated

Nobel Laureates 90<sup>th</sup> anniversary group photograph, Dec. 10, 1991, Stockholm (+ enlarged color copy laminated)

Herbert C. Brown and Richard Nixon at the White House, 1970

Richard Nixon on award dais, et al, and HCB, February 16, 1970

Herbert C. Brown with Research Group, black and white, 1970

Herbert C. Brown and large group on Wetherill steps, undated

Herbert C. and Sarah B. Brown with group, Karachi, undated

Herbert C. Brown with Current and Former Associates, in front of Wetherill Building, Purdue University, Celebrating Brown's 80<sup>th</sup> Birthday, 1992 (color copy laminated)

Herbert C. Brown age about 65 (2 sepia copies of HCB portrait by B. Blackwell von Rijn, 1980)

Herbert C. and Sarah B. Brown with Nobel entourage, 1979 (b/w)

## **Box 334**

Framed photographs, certificates, posters, undated – 1998

Herbert and Sarah Brown in Hawaiian garb, wearing leis, undated Young Jewish woman, undated

Young Jewish woman and man, undated

Herbert C. Brown holding bowl and "Morton" ball cap, undated Ripley's *Believe it or Not* cartoon, 1981

"Four Generations in Borane Chemistry, HCB, Subba Rao, Acharya, Kulkarni, undated

Academia de la Investigacion Cientifica, framed diploma, 1991 National Academy of Science award in Chemical Science, framed certificate, 1987

Herbert C. Brown and Others in front of Wetherill Building, Purdue University, 1970

Toast the Top 75, American Chemical Society national meeting in Boston, framed poster, 1998

## **Box 335**

Framed miscellaneous printed pieces, art reproductions

Boron Chemist's Concept of Periodic Chart, R.E. Williams, Roy Carter, AeroJet General, undated

2-Nonbornyl Cation Lumo, undated

Monty Python's Flying Carbocation, undated

Prints from Bader collection, all undated

Alchemist (Cornelius)

Hippocrates visiting Democritus (Jacob Backer)

Alchemist (Heerschop)

Portrait of Rembrandt, age about 50

Man Surprised (Brouwer)

Man Surprised, sepia (Brouwer)

Sight (Keil)

Dutch Brewer (Abrahamsc)

Herbert C. Brown, age about 55

#### **Box 336**

Miscellaneous memorabilia, 1968-1994

Yellow Hill

**HCB Oral History** 

Remembering HCB

ACS Pauling Medal 1968

Copernicus, undated

Jn. Purdue Warranty Deed (2 copies), undated

HCB Center for Borane Research plaque March 31, 2000

Phi Beta Kappa, framed certificate, May 10, 1972

Classroom Film – NBC, postmarked March 16, 1960

Heidelberg, print of pen and ink or charcoal drawing, taped flyer and photo on reverse of print reads:

"Operation Chemistry" Summer 1994

University of WI July 10 – 23
Purdue University July 23 – August 6
Watercolor of Bay Area, given to HCB on visit, University of San Francisco, December 16, 1980

#### **Box 337**

Plaques, posters, 1946-1981

Renaud Foundation Lectureship, May 7, 1968

Journal & Courier, "Purdue Chemist Wins Nobel," story and picture of Herbert and Sarah Brown, October 15, 1979

C & E News Toast of Top 75, plaque, undated

Chemical Engineering cover, July 7, 1980

Remson Memorial Lecture, June 2, 1961

Honorary Doctor of Science, Purdue University, May 16, 1981

Drawing of Herbert C. Brown, Commemorating him as a Visiting Professor at the University of Mexico, 1954 [torn on left side]

City College lecture poster, 1946

Journal & Courier, plaque honoring Herbert and Sarah Brown, August 15, 1979

Honorary Doctor of Science, University of Chicago, plaque, June 7, 1968

#### **Box 338**

Framed pictures, 1970-1992

Herbert C. Brown with Thai Princess Chulabhorn, alchemist and patron, and with members of Royal Thai Chemisty Society, (letter inside frame may contain date), undated

Herbert C. Brown with three men, undated

Herbert C. Brown with seven men, undated

Herbert C. Brown with 16 others, 15 men, one woman, undated

Herbert C. Brown on steps with balloons rising, undated

Herbert C. Brown travel entourage, undated, presumably 1979 (?)

Herbert C. Brown with eight research groups (current and former associates), 1970, 1974, 1978, 1981, 1982, 1986, 1989, April 3, 1992

Herbert C. Brown standing with plaque for the HCB Symposium & Lecture, 1992

Aerial photograph of manufacturing site, undated

## **Box 339**

Photo albums, scrapbooks, 1978-1994

Shanghai photo album, October 6, 1994

Herbert C. Brown Symposium guest book, May 4-6, 1978

News clippings regarding the Nobel Prize, 1979 (red binder)

News clippings of HCB stories by Kevin Cullen, December, 1979 (red)

Korean photo album, 1982 (pink book)

Conference de la Serie Premios Nobel, Ciudad University, Mexico, October 31, 1983

Thailand, Purdue Alumni Club, 1985 (small pink book)

Herbert C. Brown's 80<sup>th</sup> year Symposium guestbook, April 2-4, 1992

Herbert C. Brown on occasion of 100<sup>th</sup> PhD in his 25<sup>th</sup> year, undated

#### **Box 340**

Scrapbooks, photo albums, 1958-2002

Photo album, miscellaneous pictures in envelope, news clippings, letter, guest list, Exponent articles, April 1997, brochures, pamphlets, photos, 1979-2002

Thailand, Purdue Alumni Club, souvenir book, 1980 Butler University scrapbook, May 16, 1982

#### **Box 341**

Wrapped artifacts, 1958-1989

Herbert C. Brown at Seoul Symposium of Nobel Laureates, Seoul, Korea, 1989

Herbert C. Brown at Seoul Symposium, from Pohang Iron and Steel Company, Visit to Posco, 1989

Boxed Japanese black enamel quartz clock, undated

Dr. Brown rootbeer can (1) and bottles (2), undated

Desk pen set, 11<sup>th</sup> O.M. Smith Lecture, Oklahoma State University, Phi Lambda Upsilon, April 11, 1958

Mexican pottery bowl, cracked, undated

Acrylic triangular paperweight identifying minerals, undated

## **Box 342**

Audiovisual materials, 1957-1978

Slides in yellow plastic case, undated

Herbert C. Brown slides, packed in yellow shoebox with a few photographs of HCB group, undated (April 4-5, 1957 on one)

Brown Symposium Lectures videotapes (5 copies), 1997

Series of cassettes in gray archival box, Herbert C. Brown lectures at Hope College, Holland, MI, June 1, 1978

## **Box 343**

Boxed miscellaneous working files, 1953-2003

Nominations materials for Suzuki, Negishi, et al., ca. 2003; Restricted and moved to box 117

American Chemical Society (ACS) Herbert C. Brown award

Correspondence, emails 1994-2004

Charles Brown publications

American Chemical Enterprise Journal, 1995

Herbert C. Brown 90<sup>th</sup> birthday book, May 22, 2002

Department of Energy Proposal, 2003

Research reprints

Purdue fuel cell research, 2003

Borane Center Triennial Report, 2003

National Medal of Technology nomination, 2001

"New Continent" lecture, May 1-2, 2003

C & E cover featuring Herbert C. Brown, 1953

American Chemical Enterprise Journal, 1995

Herbert C. Brown 90<sup>th</sup> birthday book, May 22, 2002

## **Box 344**

Poster box

Hydrogenation Poster with Engelhard Catalysts, undated Foreign language poster, undated

Slide rule

#### **Box 345**

Poster box

Nobel Prize for Physiology or Medicine poster, Fischer/Krebs, 1992 *Journal of Organo-metallic Chemistry*, undated

## **Box 346**

Brown-colored paper portfolio, large, 1974-1981

Blank poster boards, one May 1981

Negatives, photos of Brown Gassimeter, 5 sleeves, March 1974

Equipment schemas/'blueprints' on acetate Herbert C. Brown in group photos, ca, 1974

#### Unnumbered

Wooden boxes containing models, two large boxes

Wooden lecture shelf

#### Unnumbered

Black case of molecular modeling pieces

Binary slide rule, separated from box 53

# **Larger Framed Art, Artifacts**

Painting by Robert Chase, Paris scene, untitled (labeled I), undated Painting by Robert Chase, Paris scene, untitled (labeled II), undated Sepia Art Print ("Panorama of Torun"), presented by Organizing Committee of IMBERON VII to Herbert C. Brown, Torun",

Poland, August 2, 1990

Untitled Gaugin reproduction (framed), undated

Herbert and Sarah Brown with Nobel Prize (framed), 1979

80<sup>th</sup> Birthday HCB Symposium Poster

Certificate, National Medal of Science, signed by Pres. Richard Nixon, 1969

Membership of the President's Committee on the National Medal of Science, 1981 (signed by President Jimmy Carter)

Poster of Purdue Heroes Herbert C. Brown, Neil Armstrong, Amelia Earhart, by Michele Miller, 1982

Order of the Griffin, Purdue University, framed certificate, 2002 National Academy of Sciences, framed certificate, 1957

Golden Plate Award 1971

Copernicus, Gift of Former Student, M. Zaidlewicz, framed painting, undated

## On Shelf

Sarah and Herbert Brown, color photographic portrait (framed), 1979 Painting by Molecular Expressionist Delbert Venerable, commissioned for Brown, 1978

Painting of Herbert C. Brown by Giovannella (aka Joan Markson Carregal), undated

## **Box 77**

Nobel Prize (mounted replica from Museum of Science and Industry), Nobel Hall of Science, 1979

#### **Box 81**

Academia De Artes Y Ciencias, Puerto Rico, undated American Chemical Society Medal, 1976 (2 medals)

Golden Jubilee Science Degree Program, Chulalongkorn, 1984

Joseph Priestley Medal, American Chemical Society, 1981

Kyunghee University (2 medals with Oughtopia GCS, bolo tie), undated

L. J. Beckham Memorial Lecturer Medal, November 11, 1983

Linus Pauling Medal, ACS (American Chemical Society) for Outstanding Achievement in Chemistry, 1968

XXIII Reunion Bienal De La R.S.E.Q., Salamanca, 1990

National Academy of Sciences Centennial Medal, 1963

Perkin Research Medal for Outstanding Work in Applied Chemistry, February 12, 1982

Roger Adams Medal, American Chemical Society, June 15, 1971

## **Box 82**

750 Lecie Miasta Torunia, 1233-1983 American Institute of Chemists, 1985 Chemical Society Centenary Lecture Ship, 1955

Christopher Ingold Lecture, Chemical Society, 1978-1979

City College Chemistry Alumni Award for Scientific Achievement, 1976

Cliff S. Hamilton Award in Organic Chemistry, undated

Herbert C. Brown Medal of the American Chemical Society, for Creative Research in Synthetic Methods, 1998

Institute of Chemistry Academia Sinica, 1956 [horse on verso]

Institute of Chemistry Academia Sinica, 1956 [panda on verso]

National Academy of Sciences Award for Innovative Research in Chemical Sciences, 1987

National Medal of Science, Awarded by President of United States of America, 1969 SOCMA (Synthetic Organic Chemical Manufacturers Association of the United States) Award for Creative Research in Organic Chemistry, 1960

Universidad Nacionale Autonoma De Mexico, 1979

Universitas Studii Paduani, undated

William H. Nichols Medal, New York Section of the American Chemical Society, 1959

#### **Box 83**

100 Jahre Beilsteins Handbuch Der Organischen Chemie, 1881-1981

American Chemical Society, Auburn Section Award for Scientific Distinction, 1987

Charles Frederick Chandler Medal, 1973

Chemical and Engineering News Top 75 Award, August 23, 1988

Einstein Medal, Jewish Academy of Arts and Sciences, 1986

Elliott Cresson Medal, awarded by the Franklin Institute of the State of Pennsylvania, 1978

Japanese Pharmaceutical Society, 1982

Medal of Culture from China, 1980

National Library of Medicine, Service to Mankind, Honor to America,

Sesquicentennial Commemorative Award, 1986

Nicolai Copernicus University Medal, undated

Phi Lambda Upsilon Key, H.C. Brown, Honorary Member, 1961

Nobel Prize in chemistry, 1979