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Liberal Arts & Sciences

Chemistry

Synthetic Rubber Research Reports, 1942-1955

Box 1: Copolymer Research Discussion Group

List of Reports, CR1 to CR790

Reports CR1 - CR19, CR21 - CR23, CR25A, CR29, CR31, CR33 - CR40, CR42 - CR53,  
CR55 - CR175 (December, 1942 - October, 1943)

CR2 -- Minutes of Rubber Research Discussion Group (December 28-29,  
1942)

CR46 -- Minutes of Polymer Research Discussion Group (March 22-23,  
1943)

Box 2: Copolymer Research Discussion Group

Reports: CR176 - CR234, CR236 - CR303, CR306 - CR325 (September, 1943 - May, 1944)

Box 3: Copolymer Research Discussion Group and Technical Reports to Rubber Reserve Company

Reports: CR326 - CR470 (May, 1944 - November, 1944)

Box 4: Technical Reports to Rubber Reserve Company

Reports: CR471 - CR632 (November, 1944 - March, 1945)

Box 5: Technical Reports to Rubber Reserve Company

Reports: CR633 - CR697, CR699 - CR777, CR779 - CR790 (March, 1945 - August, 1945)

Box 6: Technical Reports to Reconstruction Finance Corporation

Reports: CR791 - CR940 (July, 1945 - January, 1946)

Box 7: Technical Reports to Reconstruction Finance Corporation

Reports: CR941 - CR1019, CR1021 - CR1090 (December, 1945 - May, 1946)

Box 8: Technical Reports to Reconstruction Finance Corporation

Reports: CR1091 - CR1255 (May, 1946 - October, 1946)

Box 9: Technical Reports to Reconstruction Finance Corporation

Reports: CR1256 - CR1349, CR1351 - CR1405 (October, 1946 - March, 1947)

Box 10: Technical Reports to Reconstruction Finance Corporation

Reports: CR1406 - CR1468, CR1470 - CR1535 (March, 1947 - June 1947, June 1948)

Box 11: Technical Reports to Reconstruction Finance Corporation

Reports: CR1536 - CR1686, CR1688 - CR1690 (February, 1947 - December, 1947)

Box 12: Technical Reports to Reconstruction Finance Corporation

Reports: CR1691 - CR1768, CR1770 - CR1840 (December, 1947 - June, 1948)

Box 13: Technical Reports to Reconstruction Finance Corporation

Reports: CR1841 - CR2000 (May, 1948 - January, 1949)

Box 14: Technical Reports to Reconstruction Finance Corporation

Reports: CR2001 - CR2031, CR2033 - CR2042, CR2044 - CR2056, CR2058 - CR2125  
(January, 1949 - October, 1949)

Minutes of Meeting: CR2112 (February 1, 1949)

Box 15: Technical Reports to Reconstruction Finance Corporation

Reports: CR2126 - CR2266, CR2270 (July, 1949 - January, 1950)

Box 16: Technical Reports to Reconstruction Finance Corporation

Reports: CR2271 - CR2321, CR2323 - CR2351, CR2353 - CR2400 (January, 1950 -  
June, 1950)

Box 17: Technical Reports to Reconstruction Finance Corporation

Reports: CR2401 - CR2405, CR2407 - CR2446, CR2448 - CR2465, CR2467 - CR2545  
(May, 1950 - November, 1950)

Box 18: Technical Reports to Reconstruction Finance Corporation

Reports: CR2546 - CR2653, CR2655 - CR2993, CR2695 - CR2710 (October, 1950 -  
June, 1951)

Box 19: Technical Reports to Reconstruction Finance Corporation

Reports: CR2711 - CR2778, CR2780 - CR2855 (May, 1951 - November, 1951)

Box 20: Technical Reports to Reconstruction Finance Corporation

Reports: CR2856 - CR2965, CR2967 - CR2984, CR2986 - CR3015 (October, 1951 - June, 1952)

Box 21: Technical Reports to Reconstruction Finance Corporation

Reports: CR3016 - CR3067, CR3069 - CR3090, CR3092 - CR3131, CR3133 - CR3155 (June, 1952 - November, 1952)

Box 22: Technical Reports to Reconstruction Finance Corporation

Reports: CR3156 - CR3229, CR3231 - CR3257, CR3259 - CR3287, CR3289 - CR3300 (October, 1952 - June, 1953)

Box 23: Technical Reports to Reconstruction Finance Corporation

Reports: CR3301 - CR3381, CR3384 - CR3440 (June, 1953 - December, 1953)

Box 24: Technical Reports to Reconstruction Finance Corporation

Reports: CR3441 - CR3478, CR3480 - CR3570 (December, 1953 - August, 1954)

Box 25: Technical Reports to Reconstruction Finance Corporation

Reports: CR3571 - CR3591, CR3593 - CR3670, CR3672 - CR3677, CR3679 - CR3710 (July, 1954 - January, 1955)

Box 26: Technical Reports to Reconstruction Finance Corporation

Reports: CR3711 - CR3788 (January, 1955 - June, 1955)

CD-12 Agitation, Heat Transfer and Related Chemical Engineering Variables  
in GR-S Polymerization

J. D. Fennebresque

Office of Asst. Rubber Director

Research and Development of Synthetics

CD-22 Progress Report - Oxygen Analyses with the Pauling Meter

H. Drooz and C. W. Perry

Goodyear Synthetic Rubber Corporation

CD-27 Summary Report on the Temperature of Reaction

W. C. Lang  
Firestone Tire and Rubber Company

CD-33 Progress Report GR-S Polymerization Activation  
A. S. Gow and P. S. Gheer  
Goodyear Synthetic Rubber Corporation

CD-63 Ferricyanide Activated Polymers  
H. Hoyer, M. Mazur and M. J. Tierney  
United States Rubber Company

CD-100 Effect of Ferricyanide upon GR-S Polymerization Rate with Various  
Modifiers  
L. D. Hess and A. M. Borders  
Goodyear Tire and Rubber Company

CD-109 Modifying Power of DD Mercaptan as a Function of DDM Composition  
W. Worrell and H. Hoyer  
United States Rubber Company

CD-113 Low Temperature GR-S Polymerization  
J. E. Troyan  
Office of Asst. Rubber Director  
Research and Development of Synthetics

CD-160 Italian Buna S Analysis  
R. W. Kixmiller  
Office of Asst. Rubber Director  
Research and Development of Synthetics

CD-161 Activation of GR-S to High Conversion; Check of the Kolthoff Method  
L. D. Hess and A. M. Borders  
Goodyear Tire and Rubber Company

CD-188 Progress Report No. 2 - Use of Pauling Oxygen Meter in Standard  
Copolymer Plant  
H. Drooz and P. S. Greer  
Goodyear Tire and Rubber Company

CD-197 Status Report on Rubber Reserve Soap Program  
E. S. Pfau and J. W. Wilson  
The B. F. Goodrich Company

CD-198 Evaluation of Sulfole B-8 Mercaptan

H. L. Trumbull  
The B. F. Goodrich Company

- CD-268 Polymerization and Evaluation of 2, 5-Dichlorostyrene Copolymers  
Kixmiller and Fennebresque
- CD-296 Variation in Heat of Reaction of GR-S During Polymerization  
O. E. Dwyer
- CD-312 Laboratory and Factory Evaluations of Latex Compounded Black  
Masterbatches of Low-Temperature, Low Conversion Redsol Activated  
GR-S  
M. E. Samuels  
Copolymer Corporation
- CD-320 Pilot Plant Evaluation of Tertiary Mercaptans  
J. E. Troyan  
Phillips Petroleum Research Laboratory
- CD-401 The Copolymerization of Alpha-methyl-para-methyl-styrene and Butadiene  
J. P. Thorn  
Univ. of Akron
- CD-405 Butadiene/Alpha-Methyl Styrene/Vinyl Pyridine Terpolymers  
H. T. Groves  
National Synthetic Rubber Corporation
- CD-441 Laboratory Evaluations of Copolymers Made with Various Butadiene;  
Styrene Ratios Samuels

Box 27:

- CPD Reports 11, 34-37, 40, 72-75, 79, 81, 93, 113, 151, 156, 163, 165-166, 181, 208 (February -  
December, 1943)
- DA Reports 2-3 (May, 1943 - January, 1944)
- G Reports - German (1945 - 1953)
- GA Reports 18 - 21 (December, 1944)
- OP Report 10 (September, 1944)
- OP-S Reports 1-6, 8-21, 23-65, 67-68, 70-82, 85-112 (September, 1944 - January, 1948)
- CPD-11 Methods of Following GR-S Conversion  
C. Marvin and M. J. Tierney  
U. S. Rubber Co.
- CPD-34 Heat of GR-S Polymerization. Summary Report IV.

- J. W. Troyan  
Office of Assistant Deputy Rubber Director  
Research and Development of Synthetics
- CPD-35 Short Stopping Agents and Defoamers. Summary Report V.  
J. W. Troyan  
Office of Assistant Deputy Rubber Director  
Research and Development of Synthetics
- CPD-36 Methods for Determining Conversion in the GR-S Polymerization  
J. E. Troyan  
Office of Assistant Deputy Rubber Director  
Research and Development of Synthetics
- CPD-37 GR-S Coagulation Methods. Summary Report VII.  
J. E. Troyan  
Office of Assistant Deputy Rubber Director  
Research and Development of Synthetics
- CPD-40 Impurities in the Fresh and Recycle Monomer  
J. E. Troyan, etc.
- CPD-72 Coagulation of GR-S Latex: Factors Affecting Creaming, Coagulation,  
and Soap Conversion. Summary Report VIII  
J. E. Troyan, etc.
- CPD-73 Emulsifiers in GR-S Polymerization. Summary Report IX  
R. L. Haden, Jr., etc.
- CPD-74 Modifiers in GR-S Polymerization. Summary Report II  
R. L. Haden, Jr., etc.
- CPD-75 Determination of Hydrocarbon Conversion During the Polymerization of  
GR-S  
H. H. Robinson, Jr. and C. R. Johnson  
Firestone
- CPD-79 Effect of Temperature on the Polymerization of Buna-S  
Summary Report X  
P. S. Greer, etc.
- CPD-81 Effect of Stearic Acid on the Electrical Properties of GR-S  
R. B. Stambaugh  
Goodyear

- CPD-93 Rosin Soap GR-S  
M. J. Tierney, W. S. Coe  
U. S. Rubber
- CPD-113 Second Progress Report on Rate of Mercaptan Disappearance During GR-S  
Polymerization  
R. W. Hobson and A. M. Borders  
Goodyear
- CPD-151 An Extraction-Titration Method for Determining Per Cent Styrene in  
Stripped Latex  
J. V. Harvey  
U. S. Rubber
- CPD-152 Modifier Effectiveness vs. Chargin Procedure  
H. L. Dick, Jr., C. M. Nelson, and H. B. Richmond  
U. S. Rubber Co.
- CPD-156 Controlled Viscosity Polymers  
B. S. Garvey, Jr.  
B. F. Goodrich Co.
- CPD-163 Evaluation of Rosin Acids in the GR-S Plant Polymerization  
M. J. Tierney and W. S. Coe  
U. S. Rubber Co.
- CPD-165 Rosin Soap GR-S Plant Polymerization  
M. J. Tierney and W. S. Coe  
U. S. Rubber Co.
- CPD-166 Antioxidant Emulsion  
M. J. Tierney and W. S. Coe  
U. S. Rubber Co.
- CPD-181 Comparison of Distilled Fatty Acids with Tallow Soaps in Polymerizations with  
Recycled Butadiene  
H. J. Osterhof and R. D. Juve  
Goodyear
- CPD-208 Evaluation of the Revised Goodrich Salt-Acid Coagulation  
R. L. Steller
- DA-2 Effect of Variation in Butadiene: Styrene Ratios on the Properties  
of GR-S Type Rubber

- R. W. Kixmiller  
Office of Assistant Deputy Rubber Director  
Research and Development of Synthetics
- DA-3 German Buna-S  
R. W. Kixmiller  
Office of Assistant Rubber Director  
Research and Development of Synthetics
- DA-3A German Buna-S (Supplementary Reports)  
R. W. Kixmiller  
Office of Assistant Rubber Director
- GR-18 The Determination of Particle Weights or Molecular Weights by Means of  
Combined Ultramicroscopic and Absorption Measurements in Cases Where  
the Total Concentration of the Light Scattering Substance is Unknown  
W. Heller  
University of Chicago
- GR-19 The Rugoismeter: An Instrument for Measuring Surface Roughness  
M. Mooney  
United States Rubber Company
- GR-20 Particle Size of Polyvinyl-Chloride Molecular Weight 100,000  
Fred W. Billmeyer, Jr.  
Cornell University
- GR-21 Measurement of Refractive Index and Determination of the Styrene  
Content of GR-S Copolymers  
Irving Madorsky and Lawrence A. Wood  
National Bureau of Standards
- OP-10 Antioxidant Control in the Manufacture of GR-S  
B. F. Goodrich Company

TECHNICAL REPORT  
TO  
Rubber Reserve Company  
SUBCOMMITTEE ON SPECIFICATIONS AND TEST METHODS

Box 27:

- OP-S-1 A Method for Checking DDM: Sulfole Ratios in Plant Modifier Batches  
J. O. Knobloch, C. Sturdivant  
The Firestone Tire and Rubber Company



- OP-S-2      A Convenient Apparatus for Oxygen Determination in Butadiene Vapor  
by the Manganous Hydroxide Method  
              J. O. Knobloch  
              The Firestone Tire and Rubber Co.
- OP-S-3      Improved Procedures for the Analysis of Polymerization Grade and  
Recycle Butadiene  
The Determination of 1,3\_ and 1,2\_ Butadiene  
              E. A. Crockett and T. L. Davies  
              St. Clair Processing Corporation Ltd.
- OP-S-4      Chlormaleic Anhydride, a New Reagent for Determining 1, 3\_ Butadiene  
              T. L. Davies  
              Canadian Synthetic Rubber Ltd.
- OP-S-5      The Rubber Reserve Soap Development Program  
              E. L. Borg  
              United States Rubber Company
- OP-S-6      A Preliminary Report Describing a Rapid Method for Determining PBNA  
Content of PBNA Dispersions  
              J. H. Powell, Jr.  
              B. F. Goodrich, Borger, Texas
- OP-S-8      A Method of Checking DDM\_Sulfole Ratios in Mixtures of the Two  
              Oliver Wilber  
              U. S. Rubber Co.
- OP-S-9      Determination of the Amount of Butadiene in Latex  
              R. Hunter, S. Plotkin and L. Rapp  
              United States Rubber Co.
- OP-S-10     The Determination of Unreacted Styrene Monomer in GR\_S Latex  
              G. S. Douglas  
              Goodyear Synthetic Rubber Corp.
- OP-S-11     Rapid Titration Method of Determining Soap in Polymerization  
Soap Solution  
              R. E. Smith  
              Canadian Synthetic Rubber Limited
- OP-S-12     Carbon Black for GR\_S Masterbatch Proposed Specification  
              Gaul, Coffin Panowich  
              General Tire and Rubber Co.

- OP-S-13      Determination of the Purity of Styrene by Refractive Index Method  
                 J. L. Hutson  
                 General Tire and Rubber Co.
- OP-S-14      The Determination of Styrene in Decanter Water  
                 R. M. Sluyter, H. P. Davis, D. H. McCondichie  
                 B. F. Goodrich Chemical Co.
- OP-S-15      A Spectrophotometric Method for the Determination of Unreacted Styrene Monomer in Latex  
                 F. A. Bovey  
                 National Synthetic Rubber Corp.
- OP-S-16      Recommendation for the Design and Operation of Modified Koppers\_Hinckley Butadiene Analysis Apparatus  
                 Wilburn A. Boggs  
                 U. S. Rubber Company
- OP-S-17      Precision and Accuracy of the Determination of Gel, Swelling Index and Intrinsic Viscosity of GR\_S  
                 F. W. Smith  
                 B. F. Goodrich Chemical Co.
- OP-S-18      Determination of Phenylbetanaphthylamine in GR\_S  
                 A. E. Follett  
                 Copolymer Corporation
- OP-S-19      Butadiene Control Testing by the Hinckley Method  
                 Segrave, White, and Keller  
                 United States Rubber Co.
- OP-S-20      Density and Coefficient of Expansion  
                 C. S. Cragoe and E. L. Peffer  
                 National Bureau of Standards
- OP-S-21      Non-Volatile Content of Recycle Butadiene  
                 J. F. Griffith  
                 Firestone Tire and Rubber Co.
- OP-S-23      Hazard of Mercury Vapor Associated With The Hinckley-Koppers: Podbielniak Apparatus  
                 Martin Shepherd  
                 National Bureau of Standards, Washington D. C.

- OP-S-24 Method for Determination of the Principal Components of Recycle Styrene and Styrene Blends  
E. Frieden, L. Freeman and G. O. Ebrey  
United States Rubber Co.
- OP-S-25 Determination of Styrene in Decanter Water  
Frank A. Bovey  
National Synthetic Rubber Corp.
- OP-S-26 A Comparison of the Analysis of Fresh, Blend, and Recycle Butadiene Stocks by Methods LM 2.1.1.9, LM 2.1.1.1, and LM 2.1.1.2  
Hopkins and Soday  
Copolymer Corporation
- OP-S-27 Bottle Polymerization Tests on Raw Butadiene from Koppers, Sun Oil and Dow  
F. E. Woltz and D. H. Francis  
Goodyear Synthetic Rubber Corp.
- OP-S-28 Evaluation of a Sun Oil Company Butadiene Composite Sample  
R. J. Coleman and F. E. Woltz  
Goodyear Rubber Corporation
- OP-S-29 Heat Evolution Measurement for Hydrocarbon Conversion and Reactor Control  
G. C. Anderson  
Goodyear Synthetic Rubber Corp.
- OP-S-30 The Determination of Hydrocarbon Conversion in GR\_S Lattices  
G. S. Douglas  
Goodyear Synthetic Rubber Corp.
- OP-S-31 Light Transmission through Diluted GR\_S Lattices as a Function of Hydrocarbon Conversion  
G. S. Douglas  
Goodyear Synthetic Rubber Corp.
- OP-S-32 Analysis of Soap Catalyst Solution  
A. L. Rodde  
United States Rubber Company
- OP-S-33 The Cornell Densitometer for Measurement of Latex Conversion  
Hunter, Plotkin and Rapp  
U. S. Rubber Company

- OP-S-34 A Study of Variables in Analyzing Butadiene for Acetylenes by Liquid Phase Method L. M. 2.1.4.2  
R. R. Bridges and C. Sturdivant  
Subcommittee on Specifications and Test  
Method of Operating Committee
- OP-S-35 Calculated Effect of Temperature on Vapor Pressure Determination of Light Ends in Recycle Styrene  
Joseph F. Masi  
National Bureau of Standards
- OP-S-36 A Comparison Between the Williams Plastometer Method and the Quick Mooney Method of Determining Shortstop Viscosity  
J. M. Hogue, et. al.  
Goodyear Rubber Corp.
- OP-S-37 Residual Styrene Content of Naugatuck Lattices  
R. Brumberger, F. L. Moses, A. L. Rodde  
United States Rubber Company
- OP-S-38 Study of Polymerization Grade Soaps by Means of Bottle Polymerization Tests  
R. J. Coleman and F. E. Woltz  
Goodyear Synthetic Rubber Corporation
- OP-S-39 Cross Test of Styrene Analysis Procedures  
C. B. McKeown  
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- OP-S-40 Butadiene Analysis\_Sample Introduction  
R. M. Sluyter and D. H. McCondichie  
B. F. Goodrich Chemical Company
- OP-S-41 Apparatus for Distilled Water from Plant Steam  
S. N. Plotkin
- OP-S-42 Method for Purity of Recycle and Blended Styrene  
R. M. Sluyter and D. H. McCondichie
- OP-S-43 Progress Report for Period ending March, 1946  
Corson and Stahly  
Mellon Institute of Industrial Research
- OP-S-44 Studies on the GR\_S Polymerization Process (Second Progress Report)  
B. B. Corson and E. E. Stahly

## Mellon Institute of Industrial Research

- OP-S-45      Analysis of Four Butadiene Samples Differing in Reactivity  
                 W. A. Lindbeck and F. E. Woltz  
                 Goodyear Synthetic Rubber Corporation
- OP-S-46      Studies on the GR\_S Polymerization Process (Third Progress Report)  
                 B. B. Corson and E. E. Stahly  
                 Mellon Institute of Industrial Research
- OP-S-47      Investigation of the Low Pressure Differential Recorder Applied to  
the Measurement of Latex Conversion  
                 J. D. Elam  
                 R. L. Hunter  
                 S. N. Plotkin
- OP-S-48      Density and Coefficient of Expansion of Lorol Mercaptan  
                 Mildred W. Jones and E. L. Peffer  
                 National Bureau of Standards
- OP-S-49      Determination of the Purity of Recycle Butadiene  
                 E. B. Sheldon  
                 United States Rubber Company
- OP-S-50      Continuous Butadiene Analysis by Means of the Pfundt Infra Red  
Spectrophotometer  
                 R. J. Coleman and F. E. Woltz
- OP-S-51      Monthly Progress Report  
                 Walter W. Felton  
                 The Franklin Institute
- OP-S-52      Evaluation of the Goodrich Hypodermic Syringe Method for Solids  
Conversion  
                 H. A. MacEachern and I. C. Rush  
                 Polymer Corporation Limited, Canadian Synthetic Rubber Limited
- OP-S-53      Studies on the GR-S Polymerization Process (Fourth Progress Report)  
                 B. B. Corson and E. E. Stahly  
                 Mellon Institute
- OP-S-54      Monthly Progress Report from The Franklin Institute  
                 John F. Marshall

- OP-S-55      Studies on the GR-S Polymerization Process (Fifth Progress Report)  
                 B. B. Corson and E. E. Stahly  
                 Mellon Institute
- OP-S-56      Monthly Progress Report from The Franklin Institute  
                 John F. Marshall
- OP-S-57      A Standard Williams Procedure for the Determination of Latex Polymer  
                 Viscosity  
                 R. J. Coleman and F. E. Woltz  
                 Goodyear Synthetic Rubber Corporation
- OP-S-58      A Comparison of the Bomb and Hypodermic Syringe Equipment for the  
                 Determination of Unvented Latex Solids  
                 A. G. Hastings  
                 Goodyear Synthetic Rubber Corporation
- OP-S-59      A Study of the Syringe Method for Determining Monomer Conversion  
                 C. F. Riddel, and F. E. Woltz  
                 Goodyear Synthetic Rubber Corporation
- OP-S-60      Continuous Specific Gravity Measurements of a Butadiene-Styrene Blend  
                 Fed to a Continuous Polymerization Unit  
                 W. H. Weiss  
                 Goodyear
- OP-S-61      Studies on the GR-S Polymerization Process (Sixth Progress Report)  
                 B. B. Corson and E. E. Stahly  
                 Mellon Institute
- OP-S-62      Monthly Progress No. 4 for August, 1946  
                 N. H. Smith  
                 Franklin Institute
- OP-S-63      Monthly Progress Report No. 5  
                 Carl T. Chase  
                 The Franklin Institute
- OP-S-64      Studies on the GR-S Polymerization Process (Seventh Progress Report)  
                 B. B. Corson and E. E. Stahly  
                 Mellon Institute
- OP-S-65      Determination of Antioxidant Content of Latex by Spectrophotometer  
                 Dartez, McKenna, and Larue

## Firestone Tire and Rubber Company

- OP-S-67 Progress Report No. 6 for the Period October 1 - 31, 1946  
Carl T. Chase  
The Franklin Institute
- OP-S-68 Studies on the GR\_S Polymerization Process (Eighth)  
E. E. Stahly  
Mellon Institute
- OP-S-70 Monthly Progress Report No. 7 (November, 1946)  
Carl T. Chase  
The Franklin Institute
- OP-S-71 Studies on GR\_S Polymerization Process (Ninth)  
E. E. Stahly  
Mellon Institute
- OP-S-72 A Comparison of the Williams and Quick Mooney Procedures As Applied  
to Latex Polymer Viscosity of Naugatuck GR-S  
R. Brumberger, D. C. Powell, F. L. Moses  
U.S. Rubber Company
- OP-S-73 Short Stop Viscosity Cross Check  
G. E. Beard, D. B. McMicken  
U.S. Rubber Company
- OP-S-74 Progress Report No. 8 for December 1 to 31, 1946  
Carl T. Chase  
The Franklin Institute
- OP-S-75 Studies on the GR\_S Polymerization Process (Tenth Progress Report)  
E. E. Stahly  
Mellon Institute
- OP-S-76 Studies on the GR-S Polymerization Process (Eleventh Progress Report)  
E. E. Stahly  
Mellon Institute
- OP-S-77 A Cross Check of Methods used for the Determination of Short Stop  
Viscosity  
Lindbeck, Work and Weatherford  
Goodyear

- OP-S-78      Continuous Conductivity Measurements of a Soap-Persulfate Solution Fed to a Continuous Polymerization Unit  
                 R. J. Coleman, W. H. Weiss  
                 Goodyear
- OP-S-79      A Study of the Goodrich Syringe Method (Unvented Latex) for the Determination Hydrocarbon Conversion
- OP-S-80      A Comparison Between the Williams and the Quick Mooney Methods of Determining Shortstop Viscosity  
                 Hutson and Clibourn  
                 General Tire and Rubber Co.  
                 Goodyear
- OP-S-81      Monthly Progress Report No. 9  
                 Carl T. Chase  
                 Franklin Institute
- OP-S-82      Analysis of Recycle 1,3-Butadiene, Sample No. 1  
                 Augustus R. Glasgow, Jr., et. al.  
                 National Bureau of Standards
- OP-S-85      Determination of Styrene Content of Decanter Water  
                 J. W. Sackett  
                 B. F. Goodrich Chemical Company
- OP-S-86      A Refractive Index Method for Determining the Purity of Styrene  
                 H. K. Foley, Jr.  
                 F. E. Woltz  
                 Goodyear Synthetic Rubber Corporation
- OP-S-88      Studies on the GR-S Polymerization Process (Twelfth Progress Report)  
                 E. E. Stahly  
                 Mellon Institute of Industrial Research
- OP-S-89      Monthly Progress Report No. 11  
                 Carl T. Chase  
                 The Franklin Institute
- OP-S-90      Studies on the GR-S Polymerization Process (Thirteenth)  
                 E. E. Stahly  
                 Mellon Institute
- OP-S-93      Studies on the GR-S Polymerization Process (Fourteenth)



E. E. Stahly  
Mellon Institute

Box 28:

OP-S Reports 113 - 191 (January, 1948 - July, 1951)

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RM Reports 74 - 77, 91, 134, 186, 203 - 205 (December, 1943 - October, 1944)

S Reports 1 - 39 (November, 1944 - June, 1945)

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- RM-74        Determination of Benzene and Toluene Ultraviolet Spectrophotometric  
                 Method            Shell Method No. 294  
                 Shell Development Company
- RM-75        Determination of 1, 3-Butadiene Ultraviolet Spectrophotometric Method  
                 Shell Method No. 331  
                 Shell Development Company
- RM-76        Analysis of Two-Component Mixtures Infra-Red Spectrophotometric  
                 Method            Shell Method No. 333  
                 Shell Development Company
- RM-77        Analysis of Six or Seven-Component Mixtures of C<sub>4</sub>  
                 Hydrocarbons Infra-Red Spectrophotometric Method  
                 Shell Method No. 339  
                 Shell Development Company
- RM-91        Minutes of Special Meeting on Infra-Red and Ultra-Violet  
                 Spectrophotometric Analytical Methods Houston, Texas    Sponsored  
                 by the Rubber Reserve Company and the Petroleum Administration for  
                 War
- RM-134       Hazards of Butadiene and Acetylenes  
                 Rubber Reserve Company
- RM-186       Selected Values of Properties of Hydrocarbons  
                 National Bureau of Standards
- RM-203       Heat of Combustion and Formation of the Paraffin Hydrocarbons at 25
- RM-204       Heats, Free Energies, and Equilibrium Constants of Some Reactions  
                 Involving O<sub>2</sub>, H<sub>2</sub>, H<sub>2</sub>O, C, CO, CO<sub>2</sub>, and CH<sub>4</sub>  
                 Donald D. Wagman

## National Bureau of Standards

- RM-205 Heats and Free Energies of Formation of the Paraffin Hydrocarbons in the Gaseous State, to 1500° K  
Edward J. Prosen  
National Bureau of Standards
- S-1 Progress Report for November 1944  
The B. F. Goodrich Company
- S-2 Monthly Progress Report, November 1-30, 1944  
The Goodyear Tire and Rubber Company
- S-3 November Progress Report  
U.S. Rubber Company
- S-4 Progress Report for December 1944  
The B. F. Goodrich Company
- S-5 Monthly Progress Report, November and December 1944  
The Firestone Tire and Rubber Company
- S-6 December Progress Report Synthetic Rubber Research and Development  
U.S. Rubber Company  
Naugatuck, Connecticut
- S-7 Monthly Progress Report of Synthetic Rubber Research, December 1944  
E. Cousines, J. d. D'Ianni, G. W. Ferner, S. D. Gehman,  
R. W. Hobson, J. H. Long, and R. M. Pierson  
Compiled by A. M. Borders  
The Goodyear Tire and Rubber Company
- S-8 Monthly Progress Report on synthetic Rubber Research, December 1944  
Frank J. Soday  
Copolymer Corporation
- S-9 Progress Report for January 1945  
The B. F. Goodrich Company
- S-10 Monthly Report for January 1945  
Polymer Research  
The Firestone Tire and Rubber Company
- S-11 Monthly Report for January 1945

Research Compounding  
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- S-12 Monthly Progress Report on Synthetic Rubber Research, January 1945  
Frank J. Soday  
Copolymer Corporation
- S-13 January Monthly Progress Report  
U.S. Rubber Company  
Naugatuck, Connecticut
- S-14 February Monthly Progress Report  
B. F. Goodrich Company
- S-15 Monthly Progress Report on Synthetic Rubber Research  
U.S. Rubber Company
- S-16 Monthly Progress Report on Synthetic Research, February 1945  
Frank J. Soday  
Copolymer Corporation
- S-17 Monthly Report for February, 1945  
Firestone Tire and Rubber Company
- S-18 Progress Report of Synthetic Rubber Research, January 1945  
A. M. Borders  
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- S-19 Progress Report for March, 1945  
Firestone Tire and Rubber Company
- S-20 Monthly Report for March, 1945  
Firestone Tire and Rubber Company
- S-21 Monthly Progress Report  
U.S. Rubber Company
- S-23 Progress Report of Synthetic Rubber Research, March 1945  
Goodyear Tire and Rubber Company
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- S-25 Monthly Progress Report for April 1945

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Copolymer Corporation

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- S-30 Monthly Report for May 1945  
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- S-32 Monthly Progress Report, May 1945  
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- S-34 Progress Report, June 1945  
B. F. Goodrich Company
- S-35 Progress Report for June 1945  
M. W. Swaney  
Esso Laboratories
- S-36 Monthly Report for June 1945  
Firestone Tire and Rubber Co.
- S-37 Monthly Progress Report for June 1945  
Frank J. Soday  
Copolymer Corporation
- S-38 Monthly Progress Report

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                  A. M. Borders  
                  Goodyear Tire and Rubber Co.

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Armstrong Cork Co., 1945  
Bell Telephone Labs., 1944  
Canadian Synthetic Rubber, Ltd., 1945  
Case School of Applied Sciences, 1944-45  
Committee on Standardized Methods and Apparatus, 1943  
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ESSO Labs., 1947  
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General Tire and Rubber Company, 1945  
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    Synthetic Rubber Corporation, 1945  
Navy Department, Bureau of Ships, 1945-52  
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    Industry War Council, 1942-44  
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    Research Branch, 1942-44  
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Research Analysis Committee  
    Policy Committee, 1943  
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Subcommittee on Specifications and Tests, 1942-47  
    Minutes, 1945-47  
Sun Oil. Inc., 1945-46  
Union Carbide and Carbon Corporation, 1945  
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