Bibliography on high voltage transmission line corona and radio interference and fundamental corona processes (revised 1958)

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NATIONAL RESEARCH COUNCIL OF CANADA

RADIO AND ELECTRICAL ENGINEERING DIVISION

BIBLIOGRAPHY ON HIGH VOLTAGE TRANSMISSION LINE CORONA AND RADIO INTERFERENCE AND FUNDAMENTAL CORONA PROCESSES

(REVISED 1958)

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OTTAWA

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BIBLIOGRAPHY ON

a) HIGH VOLTAGE TRANSMISSION LINE CORONA AND RADIO INTERFERENCE

b) FUNDAMENTAL CORONA PROCESSES

(Revised, 1958)

- A.S. Denholm -

INTRODUCTION

A study of corona discharge and the radio interference it produces is being carried out at the National Research Council. The study has involved the collection of a comprehensive bibliography which can readily be assembled for publication as it is stored in a punched card reference file*.

The bibliography is divided into two parts. In general, Section A contains references dealing with high voltage transmission lines, whereas Section B contains references dealing with corona discharge fundamentals. Some references contain material appropriate to Sections A and B, and these have been entered in both Sections. References are arranged chronologically, titles first, and at the end of each section an author index is arranged alphabetically.

This bibliography was issued in 1956 as ERB-392 which is now out of print, and the present edition includes the material of the earlier issue with supplements at the end of each section to bring it up-to-date. References 23a, 91a, and 74b are available as National Research Council Technical Translations (TT670, TT741, and TT665, respectively).

It is hoped that this publication will be of assistance to power companies concerned with high voltage transmission and to research workers in the corona discharge field.

The assistance of Miss. L. Chapman in assembling the references is gratefully acknowledged.

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* W.G. Hoyle, "Marginal Punched Cards for a Reference File in the Field of Electronics", NRC publication No. 4805

SECTION A

HIGH VOLTAGE TRANSMISSION LINE CORONA

AND RADIO INTERFERENCE

	1929	
1.	Dielectric phenomena in high voltage engineering. Peek, F.W., Jr.	McGraw-Hill Book Co. (1929)
	1932	
2.	Radio interference from insulator corona. McMillan, F.O.	Trans. AIEE 51, 385 (1932)
	1933	
3.	Discussion on design of transmission lines. Petersen, W.S.	Trans. AIEE 52, 55 (1933)
	1934	
4.	Corona loss versus atmospheric conditions. Higy, L., Dunlap, G.W.	Elec. Eng. 53, 272 (1934)
	1935	
5.	Some characteristics of a-c conductor corona. McMillan, F.O.	Elec. Eng. 54, 282 (1935)
	1937	
6.	Empirical method of calculating corona loss from high voltage transmission lines. Carroll, J.S., Rockwell, M.M.	Trans. AIEE 254, 558 (1937)
	1940	
7.	Radio noise, instruments and methods of measuring. Aggers, C.V., Foster, D.C., Young, C.S.	Trans. AIEE 59, 178 (1940)
8.	Radio interference, methods of controlling. Aggers, C.V.	Trans. AIEE 59, 193 (1940)
	1941	
9.	Radio quietness. Some insulator designs require special features to ensure. Miller, C.J.	Trans. AIEE 60, 62 (1941)
	1943	
10.	Radio frequencies of a power system on radio receiving systems, effect of. Aggers, C.V., Pakala, W.E., Stickel, W.A.	Trans. AIEE 62, 169 (1943)

1943

11. Radio reception with power apparatus and systems; measurements pertaining to the coordination of. Foust, C.M., Frick, C.W. — Trans. AIEE 62, 284 (1943)

1945

12. Radio noise meter calibrations, a study of wave shapes for. Frick, C.W. — Trans. AIEE 64, 890 (1945)

1947

13. Radio-noise influence of 230 kv lines. Rorden, H.L. — Trans. AIEE 66, 677 (1947)

14. Corona considerations on high voltage lines and design features of Tidd 500 kv test lines. Wagner, C.F., Wagner, A., Peterson, E.L., Gross, I.W. — Trans. AIEE 66, 1583 (1947)

15. Corona corrections on small ceramic bushings, high altitude flashover and. Pendleton, W.W. — Trans. AIEE 66, 1324 (1947)

16. Factors affecting the accuracy of radio noise meters. Dinger, H.E., Paine, H.G. — Proc. IRE (N.Y.) 35, 75 (1947)

17. Instrumentation and measurements. Tidd 500 kv test lines. Tremaine, R.L., Lippert, G.D. — Trans. AIEE 66, 1624 (1947)

1948

18. Corona behaviour of bundle conductors, results of tests carried out at the 500 kv experimental station of Chevilly (France), especially on. Cahen, F. — Trans. AIEE 67, 1118 (1948)

19. Precipitation on conductors under corona conditions (in Russian). Bogdanov, N.B., Vorobiev, A.A. — J. Tech. Phys. USSR 18, 1185 (1948)

20. The use of bundle conductors for the equipment of very high voltage lines. Cahen, F., Pelissier, R. — Bull. Soc. France Elec. Series 8, 111 (1948)

1948

21. Transmission of a-c at 400 kv (in Russian). Zhdanov, P.S., Venikov, V.A., Rozanov, G.M. — Electrichestvo 11, 3 (1948)

1949

22. Radio influence from high voltage corona. Slemon, G.R. — Trans. AIEE 68, 198 (1949)

23. Mechanism of the corona effect on a-c transmission lines. Pelissier, R., Renaudin, D. — Bull. Soc. France Elec. 9, 53 (1949)

24. Experimental research on the arrangement of conductors on 400 kv lines. Cahen, F., Pelissier, R. — Bull. Soc. France Elec. 9, 693 (1949)

25. Nomograms for corona determination of overhead lines. Kohler, K. — Elektrotech Z. 70, 493 (1949)

1950

26. Contribution to an investigation of the electric losses on h.v. d-c lines. Particular study of water drops at fixed points. Panthenier, M., Duhaut, G., Demon, L. — Gen. Elec. Rev. 59, 133 (1950)

27. Report on Tidd 500 kv test project. Sporn, P., Monteith, A.C. — Elec. Eng. N.Y. 69, 506 (1950)

28. Progress report on 500 kv test project of the American Gas and Electric Company. Corona radio influence and other factors. Sporn, P., Monteith, A.C. — CIGRE 412 (1950)

29. The general electric problem of multiple conductor overhead lines. Quilico, G. — CIGRE 219 (1950)

30. Corona losses of single conductors and of bundle conductors. Gerber, O. — CIGRE 403 (1950)

31. The choice of conductors for the equipment of 380-400 kv lines according to test carried out at the 500 kv Chevilly substation Aillert, P., Cahen, F. — CIGRE 411 (1950)

1950

32. The attenuation of electric waves, transient or periodic along polyphase lines.
Pelissier, R.
C.R. Acad. Sci. Paris 231, 48 (1950)

33. The attenuation of transient or aperiodic electric waves due to conductor losses during their propagation along overhead wires.
Pelissier, R.
C.R. Acad. Sci. Paris 230, 2162 (1950)

34. Preliminary corona loss data on Tidd 500 kv test project.
Sporn, P., Monteith, A.C.
Elec. World 134, 76 (1950)

1951

35. Corona investigation on extra-high-voltage lines. 500 kv test project of the American Gas and Electric Company.
Gross, I.W., Wagner, C.F., Naef, O., Tremaine, R.L.
Trans. AIEE 70, 75 (1951)

36. Corona losses on lines with operating voltage higher than 220 kv.
Ogorodnikov, V.E.
HEPC Ontario Research Division November (1951)

1952

37. Corona and radio influence tests on the American Gas and Electric Company 500 kv test project.
Gross, I.W., Wagner, C.F.
CIGRE 403 (1952)

38. Experience gained at the 500 kv test station of Chevilly during the period 1950 and 1951.
Cahen, F., Pelissier, R.
CIGRE 406 (1952)

39. Power loss and radio noise measurements on a 275 kv experimental transmission line.
Forrest, J.S.
CIGRE 301 (1952)

40. Radio noise in relation to the design of high voltage transmission lines.
Rorden, H.L., Gens, R.S.
Elec. Eng. 71, 873 (1952)

1952

41. Radio influence from power transmission lines — effects of wind, dust and smoke.
Smith, G.S., Jacobsen, A.B.
Power Apparatus Syst. No. 2, 932 (1952)

42. Problems of power transmission at voltages above 225 kv.
Cahen, F.
Publ. by BEAMA (1952)

1953

43. The corona of 3 ϕ extra high voltage lines as a source of losses and interference.
Rudolph, W.
Elektrotech u. Muschinenbau (EuM) 70, 131-7; 149-54; 178-81; 199-201 (1953).

44. Influence of radio interference from high voltage lines on the reception of radio and television signals.
Passerieux, P.
Bull. Soc. France Elec. 3, 432-44 (1953)

45. Experimental and theoretical study of the mechanism of propagation and radiation of interference from high voltage lines.
Fabre, M J.
Bull. Soc. France Elec. 3, 419-24 (1953)

46. Radio interference caused by extra high voltage power lines.
Pelissier, R.
Bull. Soc. France Elec. 3, 409-18 (1953)

47. Measurements of radio-frequency interference caused by high voltage lines.
Renaudin, D.
Bull. Soc. France Elec. 3, 425-31 (1953)

48. The direct current corona characteristics by a model of multiple conductor transmission line. (in Japanese).
Muto, S.
J. Inst. Elec. Engrs. Japan, 73, 1102-6 (1953)

49. Aircraft radio interference measurements.
Newman, M.M., Schwartes, R.C., Stakmann, J.R.
Elec. Eng. 72, 36 (1953)

50. Radio interference conference
Elec. J. 151 (1953)

1954

51. Protective measures against telephone and radio interference from high tension lines. Jancke, G., Ho'mgren, B., Pettersson, G.A., Akerlind, P. — CIGRE 338 (1954)

52. Corona researches on the Tanashi testing transmission line in Japan. Meri, H., Yamada, T., Haki, S. — CIGRE 402 (1954)

53. The 400 kv test station at Mannheim Rheinan (Germany) Fleisher, W., Lesch, G. — CIGRE 401 (1954)

54. Progress on the British 275-300 kv system. Sayers, D.P., Lane, F.J., Forrest, J.S. — CIGRE 406 (1954)

55. Electrostatic stress control of insulators and line hardware at extra high voltage. Sheadel, J.M. — CIGRE 214 (1954)

56. Positive d.-c. corona on polythene insulated wire in air. Rodbell, D.S., Whitehead, J.B., Millar, C.F. — J. Electrochem. Soc. 101, 91 (1954)

57. The 380 kv lines in Europe in the light of the most recent corona research. Rudolph, W. — Osterr. Z. Elekt Wirtch (OZE) 7, 37-42 (1954)

58. Field tests of radio interference on the Shin-Hokuriku main transmission line (in Japanese). Yoshino, S., Mita, N., Honda, A., Hirano, S., Nagata, H. — J. Inst. Elec. Engrs. (Japan) 74, No. 1 1-10 (1954)

59. Radio interference from electrical apparatus and systems. Merriman, H.O. — Book published by Dept. of Transport (Canada) (1954)

1955

60. The effect of weathering of transmission line conductors on corona losses in rainy weather. Seylaz, E., Gerber, O.E. — Bull. SEV Switzerland No. 19, p. 878 Sept., 1955

1955

61. Voltage gradients on high-voltage transmission lines. Adams, G.E. — Trans. AIEE III 74, 5 (1955)

1956

62. Lightning and corona performance of 330 kv lines on the American Gas and Electric and Ohio Valley Electric Corporation systems. Price, W.S., Bartlett, S.C., Zobel, E.S. — Trans. AIEE Winter General Meeting N.Y. (1956)

63. The calculation of the radio interference level of transmission lines caused by corona discharge. Adams, G.E. — Trans. AIEE Winter General Meeting N.Y. (1956)

SUPPLEMENT TO SECTION A (1958)

1954

64. Radio interference from high voltage distribution systems.
Pearce, S.F.
ERA
Tech. Rep. M/T122
(1954)

65. Characteristics and performances of apparatus for measurement of radio interference.
BSI
727 (1954)

1955

66. Calculation of a.c. corona characteristics.
Aleksandrov, G.N.
J. Tech. Phys. USSR
25, 1804 (1955)

67. General aspects of radio interference suppression.
BSI
CP 1006 (1955)

68. On the time constants of linear detectors used in radio noise measurements.
Kawakami, K. and Akima, H.
J. Radio. Res. Lab. (Tokyo)
2, 221 (1955)

69. Discussion and presentation of the causes of corona losses.
Dittrich, W.
Elektrotech u. Maschinenbau (EuM)
72, 423 (1955)

70. Effects of corona on travelling waves.
Wagner, C.F. and Lloyd, B.L.
Trans. AIEE III
74, 858 (1955)

71. Corona studies in relation to insulation.
Liao, T.W., Nye, J.R., Brustle, H.H., and Anderson, J.G.
Trans. AIEE III
74, 1046 (1955)

1956

72. Physical conditions for the production of d.c. corona on smooth conductors (in Russian).
Aleksandrov, G.N.
J. Tech. Phys. USSR
26, 2640 (1956)

73. Corona pulse research on the Tanashi testing transmission line (in Japanese).
Yamada, T., Hoki, S., Mita, N., Honda, A., and Komuro, K.
Res. Electrotech. Lab. (Tokyo)
552, 192 (1956)

1956

74. Measurements of corona losses and interference levels at the 400 kv research station in Mannheim-Rheinau, Germany with special reference to bundle conductors.
Bartenstein, R. and Lesch, G.
CIGRE 402 (1956)

75. Operation of the 330 kv systems of American Gas and Electric Co. and Ohio Valley Electric Corporation.
Sporn, P. and Price, W.S.
CIGRE 410 (1956)

76. Measurement of radio disturbances due to corona effect on extra high voltage lines. I and II.
I. Cahen, F., Carteron, J., Prokocimer, B.
II. Price, W.S.
CIGRE 416 (1956)

77. Equipment for recording radio disturbances due to high voltage lines (in French).
Carteron, J., Fromy, E., Prokocimer, B.
Gen. Elec. Rev. 65, 203 (1956)

78. Transmission at 400 kv or higher voltages in Sweden.
Jancke, G. and Lalander, S.
CIGRE 411 (1956)

79. Laws and limitations for the electrical dimensioning of extra high voltage lines.
Rudolph, W.
Osterr. Z. Elekt Wirtch (OZE) 9, 496 (1956)

80. A practical handbook for location and prevention of interference from overhead power lines.
Senn, J.C. and Wright, D.B.
U.S. Naval Civil Engineering Research and Evaluation Lab. (1956)

81. Design features of insulators and transformers which contribute to radio interference from power lines.
Orner, J.W.
Trans. S. African IEE 47, 153 (1956)

82. Radio interference research in Japan with special reference to EHV transmission lines.
Hoshiai, M., Yamada, T., Mita, N., and Yoshino, S.
CIGRE 403 (1956)

83. Corona type noise and its measurements.
Liao, T.W.
NRC H.V. Symposium 18 (1956)

1956

84. Factors influencing the corona inception voltage of extra high voltage transmission lines. Lambert, G.K. — NRC H.V. Symposium 17 (1956)

85. Radio noise testing of high voltage line equipment. Denholm, A.S. — NRC H.V. Symposium 19 (1956)

86. An analysis of the radio-interference characteristics of bundled conductors. Adams, G.E. — Trans. AIEE III 75, 1569 (1956)

87. Mathematical prediction of radio and corona characteristics of smooth bundled conductors. Miller, C.J., Jr. — Trans. AIEE III 75, 1029 (1956)

88. Effect of atmospheric contamination on generated radio influence voltage. Miller, C.J., Jr. — AIEE Conference Paper 56-1046 (1956)

1957

89. Characteristics of a.c. corona on grouped conductors (in Russian) Aleksandrov, G.N. and Shneersen, G.A. — J. Tech. Phys. USSR 27, 1811 (1957)

90. Relationship between corona and radio influence on transmission lines, laboratory studies. I. Point and conductor corona. Liao, T.W., Keen, W.A., Jr., and Powell, D.R. — Trans. AIEE III 76, 530 (1957)

91. Radio interference by corona discharges on high voltage lines (in German). Weschung, W. — Elektrotech Z. 9, 10 (1957)

92. Calculation of the incipient voltage of general corona of d.c. lines (in Russian). Tikhodeev, N.N. — Electrichestvo 10, 12 (1957)

93. Colorado high-altitude corona tests. I. Scope, tests, and instrumentation. Robertson, L.M., Wagner, C.F., and Bliss, T.J. — Trans. AIEE III 76, 356 (1957)

94. Corona loss in high voltage power transmission (in Norwegian). Henning, T. — Elektroteck T. 70, 365 (1957)

1957

95. Conductor economics on high-voltage transmission systems.
Henderson, J.M. and Wood, A.J.
Trans. AIEE III
76, 502 (1957)

96. 345-kv transmission — a progress report.
St. Clair, H.P.
Trans. AIEE III
76, 512 (1957)

97. Radio influence effects of surface treatments on small conductors.
Tuttle, P.D., Pakala, W.E., and Rorden, H.L.
AIEE
CP 57-802 (1957)

98. Measurement of corona losses on lines in operation (in Russian).
Kravchenko, V.D., Levitov, V.I., and Popkov, V.I.
Elektrichestvo
7, 31 (1957)

99. The radio influence characteristics of bundle and single conductors — 500-kv test project of the American Gas and Electric Co.
Lippert, G.D., Pakala, W.E., Bartlett, S.C., and Sparlin, B.J.
Trans. AIEE III
76, 1302 (1957)

100. Corona measurement and interpretation.
Dakin, T.W. and Lim, J.
Trans. AIEE III
76, 1059 (1957)

101. Radio interference caused by very high voltage lines (in Czechoslovakian).
Postler, L.
Slaboproudý Obzor.
18, 776 (1957)

102. Experimental investigation of impulsive noise interference reduction by spectrum modification and limiter-follower (in Russian).
Gorbachev, A.A.
Radiotekhnika
12, 64 (1957)

103. Interference sources and effective reduction procedures for power line interference.
Wright, D.B.
Proc. 3rd Conference on Radio Interference Reduction, February, 1957

104. Investigation of radio noise from existing lines and equipment to aid in the design of future extra-high-voltage lines.
Taylor, F.L., Crockford, C.J., and Nicolson, R.V.
Trans. AIEE III
76, 436 (1957)

1957

105. Contribution to the prediction of the radio interference level of extra-high-voltage lines (in French and German).
Meyer de Stadelhofen, J. and Walter, W.
Tech. Mitt. P.T.T. 35, 456 (1957)

106. The French 380-kv system — measurement of corona losses on transmission lines under normal operating conditions.
Cahen, F. and Carteron, J.M.
Trans. AIEE III 76, 1525 (1957)

107. The calculation of radio and corona characteristics of transmission-line conductors.
Miller, C.J., Jr.
Trans. AIEE III 76, 461 (1957)

108. Calculation of the corona characteristics of power transmission lines with bundle conductors (in Russian)
Aleksandrov, G.N.
J. Tech. Phys. USSR 27, 784 (1957)

1958

109. Radio interference from high-voltage transmission lines as influenced by the line design.
Adams, G.E.
Trans. AIEE III 77, 54 (1958)

110. Interference studies on 250 kv wood-pole circuits — use of oversized centre phase conductor.
Leslie, J.R. and Jones, D.E.
CIGRE 309 (1958)

111. Influence of air density on the level of radio electric interference caused by high voltage lines.
Bartenstein, R. and Meyer de Stadelhofen, J.
CIGRE 408 (1958)

112. New investigations on interference levels at the 400 kv research station in Mannheim-Rheinau.
Bartenstein, R.
CIGRE 409 (1958)

113. Investigation into the production of H.F. impulses from corona discharges on rod-type insulators with various arc-protection fittings (in German).
Würstlin, D.
Bull. Assoc. Suisse Elec. 49, 109 (1958)

1958

114. Calculation of the level of interference carried by a high-voltage line in the event of faults producing flashovers in a chain of insulators.
Jespers, P. — CIGRE 314 (1958)

115. High altitude corona and radio influence measuring installation at Leadville, Colorado.
Robertson, L.M. and Wagner, C.F. — CIGRE 405 (1958)

116. Radio interference and transmission line design.
Adams, G.E. — CIGRE 305 (1958)

117. Radio interference from high-voltage transmission lines as influenced by the line design.
Adams, G.E. — Trans. AIEE III 77, 54 (1958)

118. Development of corona shields for suspension assemblies of bundled-conductor transmission lines.
Kaminski, J., Jr. — Trans. AIEE III 77, 89 (1958)

119. Interference from three-phase transmission lines on telecommunication circuits.
Kostenko, M.V., Mikhailov, M.I., and Chernyaev, I.V. — CIGRE 317 (1958)

120. Report on the work of study committee No. 11, telephone and radio interference.
Gosland, L. — CIGRE 322 (1958)

121. Telephone interference and other effects caused by the Gotland h.v. d.c. transmission.
Pettersson, G.A., Ahlgren, L., and Forsell, H. — CIGRE 324 (1958)

122. Measurements of electromagnetic interference on high voltage (50 kv) transmission lines.
Ghesquiere, J.D. and Bennett, S.A. — 4th Conference on Radio Interference Reduction (1958)

AUTHOR INDEX TO SECTION A (INCLUDING SUPPLEMENT)

SECTION B

FUNDAMENTAL CORONA PROCESSES

1913

1. An oscillograph study of corona. Bennett, E. — Trans. AIEE 32, 1789 (1913)

1914

2. The corona produced by continuous potential. Farwell, S.P. — Trans. AIEE 33, 1631 (1914)

1921

3. The electric strength of air under continuous potentials and as influenced by temperature. Whitehead, J.B., Lee, F.W. — Trans. AIEE 40, 1201 (1921)

1925

4. A study of d-c corona in various gases. Lee, F.W., Kumelmeyer, B. — Trans. AIEE 44, 184 (1925)

1927

5. Space charge and current in alternating corona. Willis, C.H. — Trans. AIEE 46, 271 (1927)

1928

6. Space charge that surrounds a conductor in corona. Carroll, J.S., Lusignan, J.T. — Trans. AIEE 47, 50 (1928)

1929

7. Dielectric phenomena in high voltage engineering. Peek, F.W., Jr. — McGraw-Hill Book Co. (1929)

1932

8. Radio interference from insulator corona. McMillan, F.O. — Trans. AIEE 51, 385 (1932)

1935

9. Some characteristics of a-c conductor corona. McMillan, F.O. — Elec. Eng. 54, 282 (1935)

1939

10. Electrical discharge in air at atmospheric pressure. Loeb, L.B., Kip, A.F. — J. Appl. Phys. 10, 142 (1939)

1939

11. Corona discharge on liquid dielectrics. Sticher, J., Thomas, D.E.F. — Trans. AIEE 58, 709 (1939)

12. Mechanism of positive point-to-plane corona at atmospheric pressure. Trichel, G.W. — Phys. Rev. 55, 382 (1939)

1940

13. Corona discharge on rubber insulated cables. Paine, E.B., Brown, H.A. — Trans. AIEE 59, 709 (1940)

1941

14. High voltage d-c point discharges. Starr, E.C. — Trans. AIEE 60, 356 (1941)

1942

15. Threshold field studies of various positive corona phenomena. Fitzsimmons, K.E. — Phys. Rev. 61, 175 (1942)

1945

16. Corona initiation measurements on polyethylene and rubber cables. Depackh, D. — Trans. AIEE 64, 939 (1945)

17. A corona voltmeter. Widmer, A.E. — Trans. AIEE 64, 940 (1945)

1947

18. Corona starting voltage for non-uniform field in air, determination of. Hutton, J.G. — Trans. AIEE 66, 1674 (1947)

19. Theory of bipolar corona on wires (in Russian). Popkov, V.I. — Dokl. Akad. Nauk. SSSR 58 (no. 5), 799 (1947)

20. Mobility of ions under conditions of corona discharge (in Russian). Popkov, V.I. — CR Acad. Sci. URSS 58 (no. 6), 1043 (1947)

21. Corona from fine positive points. English, W.N. — Phys. Rev. 71, 638 (1947)

1947

22. The mechanism of the negative point corona at atmospheric pressure in relation to the first Townsend co-efficient.
Loeb, L.B.
Phys. Rev. 71, 712 (1947)

23. Electrical discharge through gases.
Loeb, L.B.
JIEE Pt. I 94, 349 (1947)

24. Positive corona in freon-air mixtures.
Mohr, E.I., Weissler, G.L.
Phys. Rev. 72, 294 (1947)

25. Negative corona in freon-air mixtures.
Weissler, G.L., Mohr, E.I.
Phys. Rev. 72, 289 (1947)

1948

26. Corona, the space charge due to.
Smith, O.J.M.
Trans. AIEE 67, 1137 (1948)

27. Co-efficient of recombination of ions under conditions of corona discharge in atmospheric air (in Russian).
Popkov, V.I.
Dokl. Akad. Nauk. SSSR 59 (no. 1), 61 (1948)

28. Recent developments in analysis of the mechanisms of positive and negative corona in air.
Loeb, L.B.
J. Appl. Phys. 19, 882 (1948)

29. The threshold for the positive pre-onset burst pulse corona and the production of ionising photons in air at atmospheric pressure.
Loeb, L.B.
Phys. Rev. 73, 798 (1948)

30. Positive and negative point-to-plane corona in air.
English, W.N.
Phys. Rev. 74, 170 (1948)

31. Corona from a water drop.
English, W.N.
Phys. Rev. 74, 179 (1948)

32. Precipitation on conductors under corona conditions. (in Russian),
Bogdanov, N.B., Vorobiev, A.A.
J. Tech. Phys. USSR 18, 1185 (1948)

1948

33. Development of the spark discharge.
Allibone, T.E.
Letter, Nature London
161, 970 (1948)

34. Development of spark discharge.
Saxe, R.F., Meek, J.M., Allibone, T.E.
Nature, London
162, 263 (1948)

1949

35. On the theory of the unipolar d-c corona (in Russian).
Popkov, V.I.
Electrichestvo
(no.1) 33 (1949)

36. Radio influence from high voltage corona.
Slemon, G.R.
Trans. AIEE
68, 198 (1949)

37. Point-to-plane impulse corona.
Moore, D.B., English, W.N.
J. Appl. Phys.
20, 370 (1949)

38. A contribution to the oscillographic study of corona currents in negative point-to-plane gaps.
Perrier, F.
CR Acad. Sci. (Paris)
228, 447 (1949)

39. Point-to-plane corona onsets.
English, W.N., Loeb, L.B.
J. Appl. Phys.
20, 707 (1949)

1950

40. Impulse corona on the surface of water solutions.
Sakamoto, S.
Mem. Fac. Eng., Hokaido University
8, 1 (1950)

41. The choice of suitable gap forms for the study of corona breakdown and the field along the axis of a point-to-plane gap.
Loeb, L.B., Parker, J.M., Dodd, E.E., English, W.N.
Rev. Sci. Inst.
21, 42 (1950)

42. Photon pulses from point-to-plane corona.
English, W.N.
Letter, Phys. Rev.
77, 850 (1950)

43. Negative wire corona at high temperature and pressure.
Kroller, L.R., Fremont, H.A.
J. Appl. Phys.
21, 741 (1950)

1950

44. Fluctuations of discharge parameter in predischarge currents and measurements of fluctuations (in German).
Fucks, W.
Z. Naturforsch 5a, 89 (1950)

45. A short method for evaluation of the Townsend integral for electron avalanche formation.
Dodd, E.E.
Letter, Phys. Rev. 78, 620 (1950)

1951

46. Pre-breakdown discharges in d-c positive point-to-plane corona.
Gaunt, H.M., Craggs, J.D.
Nature (London) 168, 859 (1951)

47. Negative coaxial cylindrical corona discharges in pure N_2, O_2 and mixtures thereof.
Miller, C.G., Loeb, L.B.
J. Appl. Phys. 22, 614 (1951)

48. Electrical and optical characteristics of d-c corona discharge, techniques for measuring displacement currents and visible radiations.
Gaunt, H.M., Craggs, J.D.
Letter, Nature (London) 167, 647 (1951)

49. Negative point-to-plane corona — a new mode of discharge.
Greenwood, A.
Letter, Nature (London) 168, 41 (1951)

50. Corona from ice points.
Bandel, H.W.
Letter, J. Appl. Phys. 22, 984 (1951)

51. Point-to-plane corona in dry air.
Bandel, H.W.
Phys. Rev. 84, 92 (1951)

1952

52. Formative time lags of positive point corona in air.
Menes, M., Fisher, L.H.
Letter, Phys. Rev. 86, 134 (1952)

53. The mechanism of the Trichel pulses of short time duration in air.
Loeb, L.B.
Letter, Phys. Rev. 86, 256 (1952)

1952

54. An estimate of the energies of the positive ions in a negative point-to-plane corona.
Wiessler, G.L., Schindler, M.
J. App. Phys. 23, 844 (1952)

55. Corona discharge between point and plate.
Wagner, L.
Arch. Elektrotech 40, 331 (1952)

56. Pulse free discharges in negative point-to-plane corona.
Greenwood, A.
Phys. Rev. 88, 91 (1952)

57. The mechanism of the ring discharge in negative point-to-plane corona.
Greenwood, A.
J. Appl. Phys. 23, 1316 (1952)

58. Negative point-to-plane corona — an exercise in the principle of similarity applied to gaseous discharges.
Greenwood, A.
Proc. Leeds. Phil. Lit. Soc. 6, 114 (1952)

1953

59. The direct current corona characteristics by a model of multiple conductor transmission line (in Japanese).
Muto, S.
J. Inst. Elec. Engrs. (Japan) 73, 1102 (1953)

60. Some experiments on d-c positive point-to-plane corona discharges.
Gaunt, H.M., Craggs, J.D.
ERA Rep. L/T294 (1953)

1954

61. Fast time analysis of intermittent point-to-plane corona in air. I — The positive point burst pulse corona.
Amin, M.R.
J. Appl. Phys. 25, 210 (1954)

62. Fast time analysis of intermittent point-to-plane corona in air. II — The positive pre-onset streamer corona.
Amin, M.R.
J. Appl. Phys. 25, 358 (1954)

63. Fast time analysis of intermittent point-to-plane corona in air. III — The negative point Trichel pulse corona.
Amin, M.R.
J. Appl. Phys. 25, 627 (1954)

1954

64. Positive d-c corona on polythene insulated wire in air.
Rodbell, D.S., Whitehead, J.B., Millar, C.F.
J. Electrochem. Soc. 101, 91 (1954)

65. The effect of varnish layers on the a-c corona from wires and points. (in German).
Hertz, C.H.
Ark. Fyz. 9, Paper 2, 29 (1954)

66. Two different breakdowns between a positive electrode with small curvature and a plane (in English).
Siksna, R.
Ark. Fyz. 9, Paper 6, 77 (1954)

67. Some peculiarities of the current potential characteristics of positive corona discharge (in English).
Siksna, R.
Ark. Fyz. 9, Paper 7, 83 (1954)

68. On the fluctuation of the initial corona voltage in air (in Japanese).
Hayashi, M., Miyoshi, Y.
J. Inst. Elec. Engrs. (Japan) 74 no. 5, 558 (1954)

69. A circumstance in which arise conduction currents and displacement currents of comparable magnitude.
Greenwood, A.
Proc. Leeds. Phil. Lit. Soc. 6 no. 4, 254 (1954)

70. Investigations on the ultra-corona discharge (in German).
Uhlig, C.A.E.
Dissent ETH Zurich Paper 2237, 342 pp (1954)

71. Positive point plane corona studies in air.
Menes, M., Fisher, L.H.
Phys. Rev. 94, 1 (1954)

1955

72. The initiation mechanism of long sparks in point-plane gaps.
Saxe, R.F., Meek, J.M.
Proc. IEE 102, C2, 221 (1955)

73. Positive point d-c corona.
Murphy, B.
Letter, Nature (London) 176, 397 (1955)

1955

74. Radio interference caused by d-c corona in a coaxial cylindrical field (in German).
Heindl, H.
Arch. Elekt. Ubertragung
9 no. 2, 93 (1955)

75. The discharge between a positive point and a plane in compressed air and carbon dioxide (in French).
Boulloud, A.
Gen. Elec. Rev.
64 no. 6, 283 (1955)

SUPPLEMENT TO SECTION B (1958)

1951

76. Positive coaxial cylindrical corona discharges in pure nitrogen, oxygen and mixtures thereof.
Miller, C.G. and Loeb, L.B.
J. Appl. Phys. 22, 494 (1951)

1955

77. Calculation of a.c. corona characteristics (in Russian).
Aleksandrov, G.N.
J. Tech. Phys. USSR 25, 1804 (1955)

78. Remarks on V.I. Popkov's paper "On the theory of corona discharge in a gas at constant voltage" (in Russian).
Tsyrlin, L.E.
J. Tech. Phys. USSR 25, 2403 (1955)

79. On the problems of the theory of the bipolar direct current corona (in Russian).
Popkov, V.I.
J. Tech. Phys. USSR 25, 2406 (1955)

80. Differential equations of unipolar corona and its integration in the simplest cases (in Russian).
Tikhodeev, N.N.
J. Tech. Phys. USSR 25, 1449 (1955)

81. Some applications of the methods of similitude and dimensions in the theory of the d.c. corona discharge (in Russian).
Tikhodeev, N.N.
J. Tech. Phys. USSR 25, 1257 (1955)

82. Localised corona discharges at a negative electrode.
Looms, J.S.T.
Nature (London) 176, 977 (1955)

1956

83. Initial stages of negative corona from a sharp point (in Russian).
Aleksandrov, G.N.
J. Tech. Phys. USSR 26, 2633 (1956)

1956

84. Air-flux sensitivity of the pulses of the negative point to plane corona in air at atmospheric pressure.
Sujak, B.
Nature (London) 178, 485 (1956)

85. Electrical and optical characteristics of d.c. corona discharges in air at atmospheric pressure.
Murphy, B.
Brit. Elec. Res. Assoc. Rep. L/T329 (1956)

86. A.C. corona current and losses on thin wires from onset to sparkover.
Uhlig, C.A.E.
NRC H.V. Symposium 16 (1956)

87. The ultra corona discharge; a new discharge phenomenon occurring on thin wires.
Uhlig, C.A.E.
NRC H.V. Symposium 15 (1956)

88. Physical conditions of the formation of corona discharge with alternating voltage.
Aleksandrov, G.N.
J. Tech. Phys. USSR 26, 1769 (1956)

89. Physical conditions for the production of d.c. corona on smooth conductors (in Russian).
Aleksandrov, G.N.
J. Tech. Phys. USSR 26, 2640 (1956)

90. Corona pulse research on the Tanashi testing transmission line (in Japanese).
Yamada, T., Hoki, S., Mita, N., Honda, A., and Komuro, K.
Res. Electrotech. Lab. (Tokyo) 552, 192 (1956)

1957

91. Criteria relationships in corona theory (in Russian).
Tikhodeev, N.N.
Electrichestvo 4, 25 (1957)

92. Characteristics of a.c. corona on grouped conductors (in Russian).
Aleksandrov, G. and Shneersen, G.A.
J. Tech. Phys. USSR 27, 1811 (1957)

1957

93. Relationship between corona and radio influence on transmission lines, laboratory studies. I. Point and conductor corona. Liao, T.W., Keen, W.A., and Powell, D.R. — Trans. AIEE III 76, 530 (1957)

94. A wrong hypothesis in the theory of the (discharge) corona (in Russian). Aleksandrov, G.N. and Tikhodeev, N.N. — J. Tech. Phys. USSR 27, 410 (1957)

95. On the critical gradients of the corona (in Russian). Popkov, V.I. — J. Tech. Phys. USSR 27, 413 (1957)

96. Remarks on V.I. Popkov' s paper "On the problems of the theory of the bipolar direct-current corona (in Russian). Tsyrlin, L.E. — J. Tech. Phys. USSR 27, 417 (1957)

1958

97. Starting potential for the coaxial cylinder coronas in hydrogen under low frequency silent electric discharge. Jatar, D.P. — Nuovo Cimento 8, 290 (1958)

98. Electrical discharges between coaxial electrodes. Looms, J.S.T. — Nature (London) 181, 696 (1958)

99. Experimental study of d.c. corona at high temperatures and pressures. Thomas, J.B. and Wong, E. — J. Appl. Phys. 29, 1226 (1958)

AUTHOR INDEX TO SECTION B (INCLUDING SUPPLEMENT)