PULSE RADIOLYSIS
A COMPREHENSIVE BIBLIOGRAPHY (JANUARY 1971 - DECEMBER 1974)

Radiolyses pulsées
Bibliographie complète (janvier 1971 - décembre 1974)

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Chalk River, Ontario
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PULSE RADIOLYSIS

a comprehensive bibliography
(January 1971 - December 1974)

by

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Résumé


Ce supplément comporte 734 références à la littérature des radiolyses pulsées, placées sous huit titres principaux de sujets. Ces références ont été compilées en faisant des recherches dans les sommaires biologiques, les résumés chimiques, les résumés de science nucléaire et la liste hebdomadaire des communications en chimie sous rayonnement publiée par le Centre de données en chimie sous rayonnement de l'Université Notre-Dame. Des données bibliographiques complètes sont fournies pour les rapports publiés de janvier 1971 à décembre 1974. Un index d'auteurs énumérant plus de 600 auteurs et un nombre semblable de co-auteurs est inclus dans la bibliographie.

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ABSTRACT

A continuation of a bibliography of which the first two parts were published as reports AECL-3524 (1970) and AECL-4066 (1972).

This supplement lists 734 references to the literature of pulse radiolysis, arranged under eight broad subject headings. The references were compiled by searching Biological Abstracts, Chemical Abstracts, Nuclear Science Abstracts and the Weekly List of Papers in Radiation Chemistry issued by the Radiation Chemistry Data Center of Notre Dame University. Full bibliographic data is given for papers published in the period 1971 to 1974. A personal author index listing more than 600 authors and a similar number of co-authors is included.
FOREWORD

As in two previous publications (AECL-3524 and AECL-4066) entries reporting incomplete or continuing research, academic contributions of a fundamental or theoretical nature, and articles published more than once have been excluded.

Selection from several abstract publications increased the work of eliminating duplicates, but also provided an opportunity to confirm the accuracy of the references. Copying the entries from microfilm versions of Biological, Chemical, and Nuclear Science Abstracts and photocopying selections from the Weekly List of Papers in Radiation Chemistry issued by the University of Notre Dame Radiation Chemistry Center provided the basic working list from which the bibliography was finally typed. Name variants were identified during index compilation and effort was directed to eliminating them and to correlating entries which appeared under different first authors. Those who use the bibliography are invited to inform the compilers of further variant entries which remain.

Acknowledgement is made to the contributions of summer employees Sara Carlisle and Kathleen James in the initial listing of authors for index preparation and to Dorothy Friesen and Rhea Fraser who typed the bibliography and its index.

Finally, the authors do not plan to publish a further supplement to this bibliography. The increasing number of commercially available data bases and the Radiation Center Bi-weekly List provide reasonable access to the literature published since 1974. However, if you feel that there are good reasons for continuing the Supplements, or to cumulate those already published write to Harry Greenshields, Chief Librarian at the imprint address.
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Berichte der Bunsengesellschaft für Physikalische Chemie, 78(6), 1974.
pp. 569-75.

2. Pulse radiolytic polarography. Competitive oxidation and reduction of hydroxycyclohexadienyl radicals at the mercury drop electrode in aqueous solutions.

Bansal, K.M. and Henglein, A.

3. Pulse radiolysis study of aqueous hydrogen cyanide and cyanide solutions.

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English translation of Khimiya Vysokkh Energii, 8(3), 1974.
pp. 255-60.

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Radiation Research, 60(3), 1974.
pp. 432-40.

23. Reaction of the hydrated electron with benzene studied by pulse radiolysis.

Marketos, D.G., Marketou-Mantaka, A. and Stein, G.


24. Hydroperoxyl radical reactions. III. Pulse-radiolytic study of the reaction of the hydroperoxyl radical with some metal ions.

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25. Solvent participation in electron transfer reactions.

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27. Radiation chemically induced reduction of Rh (dipyr) 3+ aqueous solution.

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34. Radiation chemical studies on systems related to ascorbic acid. Radiolysis of aqueous solutions of G-bromotetronic acid.

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35. Pulse radiolysis study of thallium (II) in aqueous perchloric acid solutions.

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36. Role of solvated electrons in the mechanism of hydrazine-water system radiolysis in pulsed and steady-state systems. (In Russian).


pp. 57-61.
English translation of Khimiya Vysokikh Energii, 8(1), 1974.
pp. 68-73.

37. Radiolysis of aqueous solutions of cyclopentane and cyclopentene.

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38. Pulse radiolysis of selenium-containing compounds. Selenomethionine.

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39. Pulse radiolytic investigation of reactions of diamide with hydrated electrons and OH-radicals.

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40. New information on kinetics in pulse radiolysis from measurements of Cherenkov radiation self-absorption.

Zagorski, Z.P. and Zimek, Z.


41. Pulse radiolysis of the aqueous ferro-ferricyanide system. II. Reactions of hydrogen atoms and hydrated electrons with ferrocyanide and ferricyanide ions.

Zehavi, D. and Rabani, J.


42. Pulse radiolytic study of the site of OH· radical attack on aliphatic alcohols in aqueous solution.

Asmus, K.-D., Moeckel, H. and Henglein, A.


43. Polarographic and optical absorption studies of radicals produced in the pulse radiolysis of aqueous solutions of ethylene glycol.

Bansal, K.M., Graetzel, M., Henglein, A. and Janata, E.


44. Polarographic studies on the pulse radiolytic oxidation of ascorbic acid in aqueous solution.

Bansal, K.M., Schoeneshoef, M. and Graetzel, M.


45. Pulse radiolysis and polarography. Influence of the double layer capacitance on electrode reactions of short-lived radicals in aqueous solutions.

Bansal, K.M., Henglein, A., Janata, E. and Seliers, R.M.


46. Effect of the dielectric constant on the reactivity of the solvated electron.

Barat, F., Gilles, L., Hickel, B. and Lesigne, B.


57. Electron-transfer reactions of cobalt (III) and ruthenium (III) ammines with europium (II), ytterbium (II), and samarium (II) in aqueous solutions.

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pp. 236-41.

58. Pulse radiolysis of liquids at high pressures. IV. Hydrogen-atom reactions in aqueous 0.1M perchloric acid solutions.

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59. Electron ejection and electron capture by phenolic compounds.

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61. Pulse radiolysis of mercuric ion in aqueous solutions.

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63. Electron spin resonance studies. XXXIX. Kinetic investigation of the role of radical reduction in metal ion-hydrogen peroxide systems.

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64. Pulse radiolysis of phosphoric acid, orthophosphate ion, phosphate ion, and pyrophosphate ion, in aqueous solution. I. Rate constants of the reactions with the primary products of the aqueous radiolysis. (In German).

Grabner, G., Getoff, N. and Schwoerer F.

pp. 393-403.

65. Pulse radiolysis of phosphoric acid, orthophosphate ion, phosphate ion, and pyrophosphate ion in aqueous solutions. II. Spectra and kinetics of the intermediates. (In German).

Grabner, G., Getoff, N. and Schwoerer, F.

pp. 405-17.

Graetzel, M., Henglein, A. and Bansal, K.M.

pp. 6-11.

67. Pulse radiolytic polarography: the kinetics of the oxidation of the ethanol radical at the mercury electrode.

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68. Pulse radiolytic polarography: the reduction of the ascorbic acid radical and of the ferricyanide anion at the mercury electrode.

Graetzel, M. and Henglein, A.

pp. 2-6.

69. Acid-base properties of organic peroxo radicals, \( \cdot \text{OORH} \), in aqueous solution.

Hayon, E. and Simic, M.

J. American Chemical Society, 95(20), 1973.
pp. 6681-4.

70. Base and acid catalyzed protonation of the acrylate radical dianion at the \( \beta \) position. Spectral and kinetic evidence.

Hayon, E., Lichtin, N.N. and Madhavan, V.

J. American Chemical Society, 95(14), 1973.
pp. 4762-3.


Henglein, A. and Graetzel, M.

pp. 17-20.

72. One-electron reduction of tris(bipyridyl) complexes of cobalt (III) and chromium (III).

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73. Rate of reduction of cobalt (III) complexes by \( \text{CO}_2^- \) radicals in aqueous solution.

Hoffman, M.Z. and Simic, M.

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74. Radiolytic yields of hydrated electrons at 30 to 1000 picoseconds after energy absorption.

75. Appearance of sulfatoferric complexes in the oxidation of ferrous sulfate solutions. Pulse radiolysis.
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76. Oxidation of ferrous ions by perhydroxyl radicals.
Jayson, G.G., Parsons B.J. and Swallow, A.J.

77. Some simple, highly reactive, inorganic chlorine derivatives in aqueous solution. Their formation using pulses of radiation and their role in the mechanism of the Fricke dosimeter.
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78. Yields and decay of the hydrated electron at times greater than 200 picoseconds.
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79. Reactions of fluorinated benzenes with hydrated electrons and hydroxyl radicals in aqueous solutions.
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80. Bimolecular disappearance of pyridinyl radicals in water.
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81. Pulse radiolysis study of the direct effect on sulfuric acid.
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82. Reaction of hydroxyl radicals with polyethylene oxide in aqueous solution.
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83. Transient species from the reaction of the hydrated electron with hexacyanocobaltate III.

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84. Reduction of mercuric chloride by hydrated electrons and reducing radicals in aqueous solutions. Formation and reactions of HgCl.

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85. Positive hole migration in pulse-irradiated water and heavy water.

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86. Pulse-radiolysis of aqueous potassium perbromate solutions.

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87. Properties of divalent samarium, europium, thulium, ytterbium, and tetravalent praseodymium ions in aqueous solutions resulting from pulsed radiolysis.

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88. Reactivity of neptunium and plutonium ions relative to the hydrated electron in aqueous alkaline solutions.

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90. The effect of nitrate ion on hydroxyl radical yield in aqueous solutions.

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Davies, J.V. and Ebert, M.
International J. of Radiation Biology and Related Studies in Physics, Chemistry and Medicine, 24(6), 1973.

91. Pulse radiolytic investigations of the catalyzed disproportionation of peroxy radicals. Aqueous cupric ions.

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92. Experimental determination of the redox potential of the superoxide radical \( \cdot O_2^- \).

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93. Ionization constants and spectral characteristics of some semiquinone radicals in aqueous solution.

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94. Reduction of dyes by free radicals in solution. Correlation between reaction rate constants and redox potentials.

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95. Pulse radiolysis of 1,4-dicyanobenzene in aqueous solutions in the presence and absence of thallium (I) ions.

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96. \( \gamma \)-Radiolysis and pulse radiolysis of carbon disulfide in aqueous solution. (In German).

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98. Pulse radiolytic study of the tetrathionate (3-) radical as an intermediate product in thiosulfate oxidation and tetrathionate reduction. (In German).

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99. Pulse-radiolytic study on the formation of the radical anion thiocyanatothiosulfate (SCN\( _2 \)O\( _3 \)\( ^- \)). (In German).

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100. Pulse radiolysis of nitric oxide in aqueous solution.

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J. Chemical Society, Chemical Communications, (6), 1972.
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125. Pulse radiolysis in lanthanides aqueous solutions. I. Formation spectrum and chemical properties of divalent europium, ytterbium, and samarium ions.

Faraggi, M. and Tendler, Y.

J. Chemical Physics, 56(7), 1972.
pp. 3287-93.

126. Pulse radiolysis of metallic ions in aqueous solutions. I. Pulse radiolysis in Hg$^{2+}$ and Hg$_2$$^{3+}$ ions aqueous solutions.

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127. Pulse radiolysis studies in lanthanide aqueous solutions. II. Formation, spectrum, and some chemical properties of praseodymium (IV) in aqueous solution.

Faraggi, M. and Feder, A.

J. Chemical Physics. 56(7), 1972.
pp. 3294-7.
128. Steady state and pulse radiolysis studies of Cl_2^- reactivity in micellar systems.

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129. Electron and hydrogen atom attachment to aromatic carbonyl compounds in aqueous solution. Absorption spectra and dissociation constants of ketyl radicals.

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130. Electronic spectra, photochemistry, and autoxidation mechanism of the sulfite-bisulfite-pyrosulfite systems. SO_2^-, SO_3^-, SO_4^-, and SO_5^- radicals.

Hayon, E., Treinin, A. and Wilf, J.


131. Intermediates produced from the one-electron oxidation of hydrazine. Evidence for the formation and decay of tetrazane and triazene.

Hayon, E. and Simic, M.


132. Reaction rates of electrons in picosecond pulse radiolysis.

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English translation of Khimiya Vysokikh Energii, 6(2), 1972.
pp. 149-52.

141. Electronic processes in ultraviolet and pulse-irradiated halide ion systems. Effect of heavy atoms.

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J. Chemical Physics, 56(6), 1972.

142. Pulse radiolysis studies of halogenated organic compounds in aqueous solutions.

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CONF-710517-Vol. 2.

143. Trivalent nickel. II. A pulse radiolytic study of the formation and decomposition of the ethylenediamine and glycine complexes in aqueous solution.

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Martin, J.E., Hart, E.J., Adamson, A.W., Gafney, H. and Halpern, J.

J. American Chemical Society, 94(26), 1972.
pp. 9238-40.

147. Electronic absorption spectrum and decay kinetics of the benzyl radical in solution.

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148. Ketyl radicals of benzoic pyridines.

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153. Solvated electrons in irradiated concentrated alkaline methanol and water-methanol mixtures.

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154. Pulse radiolysis studies of the oxidation of ascorbic acid by hydroxyl radicals and halogen radical anion complexes in aqueous solution. (In German).

Schoeneshoeffer, M.

pp. 649-59.
155. Radiolysis of aqueous solutions of some simple compounds containing aldehyde groups. II.

Sehested, K. and Markovic, V.M.

CONF-710517-Vol. 2.

156. Acid-base properties of the radicals produced in the pulse radiolysis of aqueous solutions of benzoic acid.

Simic, M. and Hoffman, M.Z.


Stevens, G.C., Clarke, R.M. and Hart, E.J.


158. Pulse radiolysis of the aqueous ferro-ferricyanide system. I. Reactions of OH, HO₂, and O₂⁻ radicals.

Zehavi, D. and Rabani, J.


159. The oxidation of aqueous bromide ions by hydroxyl radicals. A pulse radiolytic investigation.

Zehavi, D. and Rabani, J.


160. Pulse radiolysis of concentrated aqueous solutions of potassium thiocyanate.

Zhestkova, T.P., Pikaev, A.K. and Spitsyn, V.I.

Doklady Physical Chemistry, 204(4-6), 1972. pp. 482-5.

161. Picosecond pulse radiolysis. III. Reaction rates and reduction in yields of hydrated electrons.


162. Radiation chemistry of aqueous solutions of CFCl₃, CF₂Cl₂, and CF₃Cl.

Balkas, T.I., Fendler, J.H. and Schuler, R.H.

163. Reactions of hydrated electrons, hydrogen atoms, and hydroxyl radicals in micellar systems.

Bansal, K.M., Patterson, L.K., Fendler, E.J. and Fendler, J.H.


164. Transient species in the pulse radiolysis of periodate ion in neutral aqueous solutions.

Barat, F., Gilles, L., Hickel, B. and Lesigne, B.

pp. 847-8.

165. Study of the oxidation and reduction of Ru(NH₃)₅-N₂²⁺ by γ- and electron pulse radiolysis.

Baxendale, J.H. and Mulazzani, Q.G.

pp. 823-30.

166. Intermediates in the oxidation of thiocyanate ions by hydroxyl radicals.

Behar, D., Bevan, P.L.T. and Scholes, G.

J. Chemical Society, (22), 1971.
pp. 1486-7.


Buxton, G.V., Cattell, F.C.R. and Dainton, F.S.

pp. 687-700.

168. Electron yields and the early stages of radiolysis in aqueous systems.

Buxton, G.V., Cattell, F.C.R. and Dainton, F.S.

pp. 23-5.

169. Recent experiments on steady state and pulse radiolysis of alkaline aqueous systems.

Buxton, G.V., Cattell, F.C.R., Dainton, F.S., Lantz, T.E. and Sargent, F.P.

Prague, 1971.
pp. 295-330.

170. Effect of the structure of water on the activation energies of reactions of the hydrated electron. I. Effects of aliphatic alcohols, MgCl₂ and KI as co-solutes.

Cercek, B.

pp. 231-7.
171. Formation of H-atoms from hydrated electrons.

Cercek, B.

pp. 159-60.

172. Pulse radiolysis of aqueous cyanogen solution.

Draganic, I.G., Draganic, Z.D. and Holroyd, R.A.

pp. 608-12.

173. Pulse radiolysis of lanthanide aqueous solutions.

Faraggi, M., Feder, A. and Tendler, Y.


174. Pulse radiolysis of aqueous solutions saturated with nitrous oxide and hydrogen.

Frunze, T.A. and Shubin, V.N.

pp. 1151-3.

English translation of Doklady Akademii Nauk SSSR, 201(4-6), 1971.
pp. 1061-3.

175. Pulse radiolysis of methylamine in aqueous solution.

Getoff, N. and Schwoerer, F.


176. Pulse radiolysis of oxalic acid and oxalates.

Getoff, N., Schwoerer, F., Markovic, V.M., Sehested, K. and Nielsen, S.O.

J. Physical Chemistry, 75(6), 1971.
pp. 749-55.

177. Reactivity of inorganic phosphate anions with $e_{aq}^-$, H and OH in aqueous solutions.

Grabner, G. and Getoff, N.


178. Multiple pulse radiolysis: successive accumulation of two hydrated electrons in oxygen, nitrobenzene, and nitromethane. (In German).

Gruenbein, W., Henglein, A., Stevens, G. and Beck, G.

pp. 126-34.
179. Absorption spectrum of $e_{aq}^-$ in the temperature range -4 to 390°.

Hart, E.J., Michael, B.D. and Schmidt, K.H.

pp. 2798-805.

180. Sites of attack of hydroxyl radicals on amides in aqueous solution. II. The effects of branching α to carbonyl and to nitrogen.

Hayon, E., Ibata, T., Lichtin, N.N. and Simic, M.

J. American Chemical Society, 93(21), 1971.
pp. 5388-94.

181. Pulse radiolysis of organic compounds in aqueous solutions.

Henglein, A.


182. Pulse radiolysis of liquids at high pressures. I. Absorption spectrum of the hydrated electron at pressures up to 6.3 kilobar.

Hentz, R.R., Farhataziz, M.I. and Hansen, E.M.

J. Chemical Physics, 55(10), 1971.
pp. 4974-9.

183. Mechanism of action of low LET (linear energy transfer) radiation on aqueous solutions of ferrous ions.

Jayson, G.G., Parsons, B.J. and Swallow, A.J.

183. (cont.)

pp. 345-52.


Jayson, G.G., Stirling, D.A. and Swallow, A.J.

International J. of Radiation Biology and Related Studies in Physics, Chemistry and Medicine, 19(2), 1971.
pp. 143-56.

185. Spectrum of the hydrated electron in alkaline solutions.

Kabakchi, S.A.

pp. 162-3.
English translation of Khimiya Vysokikh Energii, 5(2), 1971.
pp. 180-82.

186. Concerning the optical absorption band of the hydrated electron.

Kenney-Wallace, G.A. and Walker, D.C.

Berichte der Bunsengesellschaft für Physikalische Chemie, 75(7), 1971.
pp. 634-37.

187. Pulse radiolysis of liquid ammonia. Reaction of an ammoniated electron with ammonium ion.

Khaikin, G.I., Zhigunov, V.A. and Dolin, P.I.

p. 72.
p. 84.
188. Electronic processes in the pulse radiolysis of aqueous solutions of halide ions.
Khorana, S. and Hamill, W.H.
J. Physical Chemistry, 75(20), 1971.
pp. 3081-8.

189. Influence of solution structure on hydrated electron reactions.
Klein, N.
AD 721 299. 1971.
45 p.

190. Pulsradiolytische Untersuchung der Oxidation chlorierter Aethylen durch OH-Radikale in waessriger Loesung.
Koester, R. and Asmus, K.-D.
Berichte der Bunsengesellschaft für Physikalische Chemie, 75(10), 1971.
pp. 1131.

Koester, R. and Asmus, K.-D.
Zeitschrift für Naturforschung B, 26(11), 1971.
pp. 1108-16.

192. Reduktion halogenierter organischer Verbindungen durch hydratisierte Elektronen.
Koester, R. and Asmus, K.-D.
Berichte der Bunsengesellschaft für Physikalische Chemie, 75(7), 1971.
p. 623.

193. Scavenger studies of electron pulse irradiated solutions at hydrated electron half lives in the range 35-0.35 nanoseconds.
Koulkes-Pujo, A.M., Michael, B.D. and Hart, E.J.
pp. 333-44.

194. Selectivity in fast reactions of aqueous OH-radicals with amides.
Lichtin, N.N.
pp. 397-403.

Mantaka, A., Marketos, D.G. and Stein, G.

196. Radiolysis of aqueous solutions of some simple compounds containing aldehyde groups. I. Formaldehyde.
Markovic, V. and Sehested, K.
pp. 1243-1253.
CONF-710517-Vol. 2.

197. Trivalent copper. I. A pulse radiolytic study of the chemical properties of the aquo complex.
Meyerstein, D.
pp. 638-41.
198. Trivalent copper. II. A pulse radiolytic study of the formation and decomposition of amino complexes.

Meyerstein, D.


199. Solvent dependence of optical and kinetic properties of solvated electrons in water-ammonia mixtures.

Olinger, R. and Schindewolf, U.


200. Pulse radiolytic investigations of hydroxyl-radical reactivities in micellar solutions.

Patterson, L.K., Bansal, K.M. and Fendler, J.H.


201. The competition for $e_{aq}^-$ between several scavengers at high concentrations and its implications on the relevance of dry electrons in the radiation chemistry of aqueous solutions.

Peled, E. and Czapski, G.


202. Pulse radiolytic investigation of $O_{aq}^-$ radical ions.

Rabani, J. and Zehavi, D.


203. Rate constants and relative yields of solvated electrons in concentrated solutions.

Rabani, J., Steen, H.B., Bugge, H. and Brustad, T.


204. The chemiluminescent reaction of hydrated electrons with optically excited fluorescein dyes.

Rodde, A.F. Jr. and Grossweiner, L.I.,


205. Pulse radiolysis of the trepylum ion, $\text{tropyilcarbinol}^\cdot$ and $\text{tropolidene}^\cdot$ in aqueous solution.

(In German).

Schoeneshoefer, M.


206. Intermediates produced from the one-electron oxidation and reduction of hydroxylamines. Acid-base properties of the amino, hydroxyamino, and methoxyamino radicals.

Simic, M. and Hayon, E.


207. Pulse radiolysis of aqueous solutions of carboxy, carbamide, and pyridyl derivatives of pyridine.

Simic, M. and Ebert, M.

208. Pulse radiolytic investigation of aliphatic amines in aqueous solution.

Simic, M., Neta, P. and Hayon, E.


209. Electron solvation and interaction with acceptors in pulse radiolysis of aqueous hydrazine solutions.

Slavinskaya, N.A., Kozlov, B.M., Pshezhetskii, S.Ya., Shemarov, F.V. and Tshepel, L.V.

CONF-710517-Vol. 2.

210. EPR pulse radiolysis studies of the hydrogen atom in aqueous solution. I. Reactivity of the hydrogen atom.

Smaller, B., Avery, E.C. and Remko, J.R.

pp. 2414-18.

211. Pulse radiolytic investigation of the mechanisms of oxidation of formaldehyde in aqueous solutions.

(In German).

Stockhausen, K. and Henglein, A.

Berichte der Bunsengesellschaft für Physikalische Chemie, 75(8), 1971.
pp. 833-40.

212. Pulse radiolysis of aqueous solutions of pentacyanocobaltate (II). The detection and characterization of pentacyanocobaltate (I).

Venerable, G.D., II and Halpern, J.

J. American Chemical Society, 93(9), 1971.

213. A reactivity trend seen in the reduction of transition metal complexes by outer-sphere reactants verified for hydrated electron reactions. Pulse radiolysis studies of cobalt-III complexes.

Venerable, G.D., II.

Inorganic Chemistry, 10(9), 1971.

214. Pulse radiolysis of formamide and formamide-water mixtures.

Walker, D.C. and Wallace, S.C.

Canadian J. of Chemistry, 49(20), 1971.
pp. 3398-401.


Zagorski, Z.P., Sehested, K. and Nielsen, S.O.

J. Physical Chemistry, 75(23), 1971.
pp. 3510-7.

216. Pulse radiolytic investigation of $\text{O}_2^{aq}$ - radical ions.

Zehavi, D. and Rabani, J.

J. Physical Chemistry, 75(11), 1971.
pp. 1738-44.
217. Optical absorption spectra of solvated electrons generated electrochemically in hexamethylphosphoramide.

Alpatova, N.M., Malt'sev, E.I., Vannikov, A.V. and Zabusova, S.E.

pp. 980-983.
pp. 1034-37.

218. Wavelength and temperature dependent effects of $e_{aq}$ formation and fluorescence of beta-naphtholate.

Feitelson, J. and Stein, G.

J. Chemical Physics, 57(12), 1972.
pp. 5378-82.

219. Fast formation of the hydrated electron by dissociation of excited beta-naphtholate.

Goldschmidt, C.R. and Stein, G.

pp. 299-303.
II. ORGANIC

220. Low temperature pulse radiolysis. I. Negative ions of halogenated compounds.
Arai, S., Tagawa, S. and Imamura, M.
pp. 519-23.

221. Solute ion and radical formation in the pulse radiolysis of acetonitrile solutions.
Baptista, J.L. and Burrows, H.D.
pp. 2066-79.

222. Pulse radiolysis study of the kinetics of electron reactions in liquid hexane at room temperature.
Baxendale, J.H. and Rasburn, E.J.
pp. 705-17.

223. Submicrosecond formation and observation of reactive carbanions.
Bockrath, B. and Dorfman, L.M.
J. American Chemical Society, 96(18), 1974.

224. Pulse radiolysis of organic halogen compounds. III. Transients in pure bromobenzene.
Bossoy, J.M. and Buehler, R.E.
pp. 85-94.

Brandon, J.R. and Firestone, R.F.
pp. 792-6.

226. Fast formation of aromatic cations in cyclohexane observed by pulse radiolysis.
Brede, O., Helmstreit, W. and Mehnert, R.
pp. 43-6.

Brede, O., Helmstreit, W. and Mehnert, R.
pp. 402-14.

228. The effect of a magnetic field on the singlet/triplet ratio in geminate ion recombination.
pp. 361-3.
229. Pulse-radiolysis of binary liquid alcohol systems containing benzene.

Brown, B.J., Barker, N.T. and Sangster, D.F.

pp. 1129-32.

230. The significance of hydrogen bonding in electron solvation processes in ethanol-n-hexane liquid mixtures.

Brown, B.J., Barker, N.T. and Sangster, D.F.

pp. 2529-34.

231. Pulse radiolysis of organic halogen compounds. IV. Reaction mechanism, dose rate effects and product back reactions in pure bromobenzene.

Buehler, R.E. and Bossy, J.M.

pp. 95-116.

232. Pulse radiolysis of liquid n-pentane and n-pentane-oxygen solutions. Rate constants and activation energies for second-order decay of pentyl and pentylperoxy radicals.

Burggraf, L.W. and Firestone, R.F.

pp. 508-14.

233. Optical spectra and reactivities of radical anions of 4-nitrobenzyl compounds produced by pulse radiolysis of acetonitrile solutions.

Burrows, H.D. and Kosower, E.M.

pp. 112-7.

234. Etude cinetique de la luminescence differee isotherme d'un verre organique apres une impulsion d'electrons accelerées.

Cordier, P., Delouis, J.-F., Kieffer, F., Lapersonne, C. and Rigaut, J.

pp. 589-91.

235. The kinetics of selective solvation of the electron in a binary liquid system.

Dainton, F.S. and Whewell, R.J.

pp. 493-4.

236. Optical absorption spectrum of the solvated electron in some liquid amides and amines.

Gavlas, J.F., Jou, F.Y. and Dorfman, L.M.

pp. 2631-5.
237. Radiation chemistry of organometallic compounds. I. Pulse radiolysis of alkylaluminum compounds and naphthalene in diethyl ether. (In German).
Getoff, N., Lehmkuhl, H. and Schwoerer, F.
pp. 259-69.

238. The influence of molecular structure on optical absorption spectra of solvated electrons in alcohols.
pp. 514-9.

239. Low-temperature pulse radiolysis. II. Time-dependent spectra of anions of aromatic ketones.
Hoshino, M., Arai, S. and Imamura, M.
pp. 1473-7.

240. Radiation effects in polyethylene films studied by pulse radiolysis.
Johnson, G.R.A. and Willson, A.
pp. 577-8.

241. Submicrosecond formation and observation of reactive carbonium ions.
Jones, R.L. and Dorfman, L.M.
J. American Chemical Society, 96(18), 1974.
pp. 5715-22.

242. Equilibria between triplet states of aromatic hydrocarbons.
Kira, A. and Thomas, J.K.
pp. 196-9.

243. Formation of ions and excited states in the pulse radiolysis of benzonitrile.
Kira, A. and Thomas, J.K.
pp. 2094-8.

244. Yield of solvated electrons in the aliphatic alcohols at picosecond times.
Lam, K.Y. and Hunt, J.W.
pp. 2414-6.

245. The pulse radiolytic decomposition of p-nitroperoxybenzoic acid.
Lilie, J., Heckel, E. and Lamb, R.C.
J. American Chemical Society, 96(17), 1974.
pp. 5543-7.
246. Effect of temperature and electrolyte ions on the properties and spectrum of solvated electrons in irradiated hexamethylphosphorustriamide.

Mal'tsev, E.I. and Vannikov, A.V.


247. Optical absorption spectra of a solvated electron in irradiated ethanol at elevated temperatures.

Marevtsev, V.S., Vannikov, A.V. and Bakh, N.A.


248. A molecule charge transfer reaction in liquid cyclohexane.

Novikova, L.I., Ametov, K.K. and Yakovlev, B.S.


249. Prompt electron scavenging by benzene in pulse-irradiated alcohols.

Ogura, H. and Hamill, W.H.


250. Pulse radiolytic investigations of HOCH2O2 radicals.

Rabani, J., Klug-Roth, D. and Henglein, A.


251. Production of solvated electrons, ion pairs, and alkali metal anions in tetrahydrofuran studies by pulse radiolysis.

Salmon, G.A. and Seddon, W.A.


252. Pulse radiolytic formation of solvated electrons, ions pairs and alkali metal anions in tetrahydrofuran.

Salmon, G.A., Seddon, W.A. and Fletcher, J.W.


253. Direct electron spin resonance detection of free radicals produced in electron irradiated liquid alcohols.

Sargent, F.P. and Gardy, E.M.

Seddon, W.A., Fletcher, J.W., Sopchyshyn, F.C. and Jevcak, J.
pp. 3269-73.

255. Pulse radiolysis and polarography: Reactions of oligomer and polymer radicals of polyethylene oxide at the mercury drop electrode.
Sellers, R.M., Bansal, K.M., Janata, E. and Henglein, A.
Berichte der Bunsengesellschaft für Physikalische Chemie, 78(10), 1974.
pp. 1085-90.

256. Initial ion pairs in pulse-irradiated weakly polar liquids.
Shaede, E.A., Kurihara, H. and Dorfman, L.M.
pp. 47-54.

257. Solvent effects on both transient optical spectra and products in radiation-induced polymerization and dimerization of vinylcarbazole.
Tagawa, S., Tabata, Y., Arai, S. and Imamura, M.
pp. 545-8.

258. Optical absorption spectra of a solvated and stabilized electron in aliphatic alcohols.
Vannikov, A.V., Rudnev, A.V. and Zimina, G.M.
pp. 15-20.

259. Radiolysis of liquid di-n-propyl ether: Alcohol formation and solvated electrons.
Vermeer, R.A. and Freeman, G.R.
pp. 1181-71.

260. Intermediates in the nanosecond pulse radiolysis of triphenylamine solutions in cyclohexane.
pp. 227-36.

261. Identification of short-lived products of the pulsed radiolysis of oxygen-saturated hydrocarbons.
Zimina, G.M. and Bakh, N.A.
pp. 46-50.
English translation of Khimiya Vysokikh Energii, 8(1), 1974.
pp. 56-60.
262. Pulse optical and electrical methods in investigating certain radiation induced ionic reactions.

Bach, N., Revina, A. and Vannikov, A.


263. Electrons in liquid alcohols at low temperatures.

Baxendale, J.H. and Wardman, P.


264. Observations on solvated electrons in aliphatic hydrocarbons at room temperature by pulse radiolysis.

Baxendale, J.H., Bell, C. and Wardman, P.


265. Yield of excited singlet and triplet states in the pulse radiolysis of toluene.

Baxendale, J.H. and Rasburn, E.J.


266. Free radical scavenging at high dose rates in the radiolysis of liquid carbon tetrachloride.

Bibler, N.E.


Bockrath, B. and Dorfman, L.M.


268. Kinetics of electron transfer from aromatic radical anions to alkyl halides in tetrahydrofuran. Effects on sodium cation pairing.

Bockrath, B. and Dorfman, L.M.


Brown, B.J., Barker, N.T. and Sangster, D.F.


Burrows, H.D., Kemp, T.J. and Welbourn, M.M.

271. On the molar extinction coefficient of the solvated electron and the G(free ion) yield in liquid methanol.

Busi, F. and Ward, M.D.

pp. 521-3.

272. Energy transfer effects in aromatic liquids.

Cundall, R.B. and Evans, G.B.

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273. Yields of excited states in the pulse radiolysis of cyclohexane solutions.


pp. 45-9.

274. Optical absorption spectrum of the solvated electron in ethers and in binary liquid systems.

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pp. 447-59.

275. Pulse radiolysis of alkali metal solutions in ethylamine.

Fletcher, J.W., Seddon, W.A. and Sopchyshyn, F.C.

pp. 2975-86.

276. Pulse radiolysis of solutions of alkali metals in liquid amines.

Fletcher, J.W., Seddon, W.A., Jevcak, J. and Sopchyshyn, F.C.

pp. 592-4.

277. Formation of excited states in the radiolysis of p-Xylene.

Gangwer, T. and Thomas, J.K.

pp. 192-206.

278. Solvation time of the electron in liquid alcohols and water at room temperature.

Gilles, L., Aldrich, J.E. and Hunt, J.W.

pp. 70-2.

279. Ionization in the track of a high-energy electron in liquid cyclohexane. Pulse radiolysis of solutions of biphenyl in cyclohexane.

Hummel, A. and Luthjens, L.H.

pp. 654-64.
280. Effect of pressure on the rates of reaction of hydrogen atoms in the radiolysis of liquid ethanol.

Jha, K.N. and Freeman, G.R.


281. Pulse radiolysis studies. XXI. Optical absorption spectrum of the solvated electron in ethers and in binary solutions of these ethers.

Jou, F.Y. and Dorfman, L.M.


Kira, A., Arai, S. and Imamura, M.


283. Solvated electrons and ions in organic systems.

Magnusson, L.B., Richards, J.T. and Thomas, J.K.


284. Influence of temperature and electrolyte ions on the properties and spectrum of solvated electrons in irradiated hexamethylphosphoramic triamide.

Mal'tsev, E.I. and Vannikov, A.V.


285. Optical absorption spectra of the solvated electron in irradiated monoethanolamine.

Marevtsev, V.S. and Vannikov, A.V.


(English translation of Khimiya Vysokikh Energii, 7(2), 1972. pp. 119-124.)

286. Titration by ethylene of thermal hydrogen atoms and positive ions in cyclohexane as studied by pulse radiolysis technique.

Reitberger, T. and Niblaeus, K.


287. Primary processes in acetone radiolysis.

Robinson, A.J. and Rodgers, M.A.J.

288. Singlet energy transfer in liquid acetone.

Robinson, A.J., Rodgers, M.A.J., Keene, J.P. and Gilbert, C.W.


289. Absorption spectra of solvated electrons in isopentanol and in isopentanol-n-heptane mixtures.

Rudnev, A.V. and Vannikov, A.V.


290. Solute triplet formation of pulse radiolysis. Dependence of camphorquinone triplet formation on donor energy.

Singh, A., Vaish, S.P. and Quinn, M.J.


291. The absorption spectra of solvated electrons in monoethanolamine and ethanol.

Vannikov, A.V. and Marevtsev, V.S.


292. Anomalously high rate constants for the reaction of solvent positive ions with solutes in irradiated cyclohexane and methylcyclohexane.

Zador, E., Warman, J.M. and Hummel, A.


293. Effect of an electrical field of absorption spectra during the pulsed radiolysis of n-heptane and isoctane in the presence of molecular oxygen.

Zimina, G.M., Bakh, N.A. and Vannikov, A.V.


294. Final products of the pulsed radiolysis and radiation oxidation of n-heptane at high dose rates in the presence and in the absence of acceptors.

Zimina, G.M., Pichuzhin, V.I., Chubakova, T.A. and Bakh, N.A.


Bakh, N.A., Borisenko, G.L., Kostin, A.K. and Revina, A.A.


296. Pulse radiolysis of alkylketones.

Bakh, N.A., Ermakova-Borisenko, G.L., and Revina, A.A.

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297. Electron disappearance in pulse irradiated CH₃Cl, C₂H₅Cl, CH₃Br, and C₂H₅Br.

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298. Rate of reaction of solvated electrons with hydrogen ions in methanol.

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299. The yield of solvent excited states in the radiolysis of cyclohexane solutions.

Baxendale, J.H. and Mayer, J.

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300. Yield of triplet state benzene in the pulse radiolysis of solutions of aromatics.

Baxendale, J.H. and Fiti, M.

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301. Picosecond pulse radiolysis of cyclohexane solutions.

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302. Spectra of transitory species in the pulse radiolysis of alkyl benzenes.

Bensasson, R.V., Richards, J.T., Gangwer, T. and Thomas, J.K.

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Bossy, J.M., Leoni, M.W. and Buehler, R.E.

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304. Solute radical cation yields in the pulse radiolysis of solutions of aromatic amines in chlorinated hydrocarbons.

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305. Dissociation equilibrium of nitroform in polar solvents studied by pulse radiolysis.

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306. Ion yields and ion neutralization processes in pulse-irradiated acetone.

Chaudhri, S.A. and Asmus, K.-D.


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308. Radiation chemistry of liquid methanol. I. The oxidizing radical.

Dainton, F.S., Janovsky, I. and Salmon, G.A.

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309. Radiation chemistry of liquid methanol. II. Oxidizing radical.

Dainton, F.S., Janovsky, I. and Salmon, G.A.

pp. 305-16.

310. Radiation-induced formation of excited states of aromatic hydrocarbons in benzene and cyclohexane. II. Yields of excited singlet and triplet state solute molecules.

Dainton, F.S., Morrow, T., Salmon, G.A. and Thompson, G.F.

pp. 457-79.


Dainton, F.S., Morrow, T., Salmon, G.A. and Thompson, G.F.

pp. 481-96.

312. The radiation-induced formation of excited states of aromatic hydrocarbons in cyclohexane. IV. Effect of electron scavengers.

Dainton, F.S., May, R., Morrow, T., Salmon, G.A. and Thompson, G.F.

pp. 497-513.

313. Stability of N$_2$O$^-$ in cyclohexane.

Dainton, F.S., O'Neill, P. and Salmon, G.A.

pp. 1001-2.
314. Pulse radiolysis study of the kinetics of formation of Na⁺ in ethylenediamine by the reaction of solvated electrons with sodium ions.

Dye, J.L., DeBacker, M.G., Eyre, J.A. and Dorfman, L.M.

pp. 839-46.

315. Optical absorption spectra and decay of solvated electrons in the pulse radiolysis of dilute solutions of ethanol in alkane solvents. Effects of hydrocarbon chain branching.

Firestone, R.F.

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8p.


Frankevich, E.L., Morrow, T. and Salmon, G.A.

pp. 445-56.

317. Optical absorption of solvated electrons in alcohols and their mixtures with alkanes.


pp. 2931-3.

318. Yields and reactions of lowest excited singlet and triplet states in the radiolysis of naphthalene and 1-methylnaphthalene.

Holroyd, R.A. and Capellos, C.

pp. 2485-91.

319. High-resolution scintillation spectra obtained with nanosecond pulses of 3-MeV electrons.

Horrocks, D.L.

pp. 239-44.


Imamura, M.

pp. 11-14.

321. Temperature shifts in the optical spectra of solvated electrons in methanol and ethanol.

Jha, K.N., Bolton, G.L. and Freeman, G.R.

pp. 3876-83.
322. Reactions of electrons in glycerol.
Kajiwara, T. and Thomas, J.K.
pp. 1700-6.

323. Pulse radiolysis study of dimer cation formation of aromatic hydrocarbons in benzonitrile solution.
Kira, A., Arai, S. and Imamura, M.
J. Physical Chemistry, 76(8), 1972.

324. Excited states in the nanosecond pulse radiolysis and laser flash photolysis of N,N-dimethylaniline.
Land, E.J., Richards, J.T. and Thomas, J.K.
pp. 3805-12.

325. Comments on the nature of the oxidized form of the nickel dimethylglyoxime complex.
Lati, J. and Meyerstein, D.
pp. 735-8.

326. Pulse radiolysis of hexamethylphosphorhic triamide.
Nauta, H. and Van Huis, C.
pp. 647-52.

327. Properties of solvated electron in irradiated methyl alcohol.
Pikaev, A.K., Sibirskaya, G.K. and Kabakchi, S.A.
pp. 1107-22.
CONF-710517-Vol. 2.

Rodgers, M.A.J.
pp. 1278-86.

329. Observation of the anthracene excimer during nanosecond pulse radiolysis of benzene solutions.
Rodgers, M.A.J.
pp. 612-14.

330. Optical absorption spectra and mobility of solvated electrons in aliphatic alcohols.
Rudnev, A.V., Vannikov, A.V. and Bakh, N.A.
English translation of Khimiya Vysokikh Energii, 6(5), 1972.
pp. 473-474.

331. Application of charge scavenging kinetics to the formation of excited states in irradiated solutions of aromatics in cyclohexane.
Rzad, S.J.
332. Viscosity-dependent rate of ion recombination following pulse irradiation.
Sawai, T. and Hamill, W.H.
J. Chemical Physics, 56(11), 1972.
pp. 5524-7.

333. Pulse radiolysis study of polymerization of vinylcarbazole in benzonitrile solutions.
Tagawa, S., Arai, S., Kira, A. Imamura, M., Tabata, Y. and Oshima, K.

Tetreau, C., Lavalette, D., Land, E.J. and Peradejordi, F.
pp. 245-7.

335. Pulse radiolysis studies of acetone solutions of biphenyl and anthracene: Formation of ions and excited singlet state.
Arai, S., Kira, A. and Imamura, M.
J. Chemical Physics, 54(12), 1971.
pp. 5073-81.

336. Pulse radiolysis studies of solutions of tetranitromethane in isopropyl alcohol.
Asmus, K.-D., Chaudhri, S.A., Nazhat, N.B. and Schmidt, W.F.
pp. 2607-17.

337. Direct observation of solvation of the electron in liquid alcohols by pulse radiolysis.
Baxendale, J.H. and Wardman, P.
pp. 449-50.

338. Nanosecond pulse radiolysis of solutions of biphenyl in isopentane at -120°.
Baxendale, J.H. and Wardman, P.
pp. 377-87.

339. Pulse radiolysis observations of solvated electrons in liquid hydrocarbons.
Baxendale, J.H., Bell, C. and Wardman, P.

340. Yields and decay processes of the solvated electron in liquid alcohols at low temperature observed by nanosecond pulse radiolysis.
Baxendale, J.H. and Wardman, P.
J. Chemical Society, Chemical Communications, (9), 1971.
pp. 429-30.

341. Yields of excited singlet and triplet states of some aromatics in the pulse radiolysis of cyclohexane solutions.
Baxendale, J.H. and Wardman, P.
pp. 2997-3007.
342. Dose rate effects in the steady and pulse radiolysis of liquid chloroform.

Bibler, N.E.

pp. 2436-42.

343. Studies of the sulfoxidation of alkanes. II. Pulse radiolysis study on the reactions of Cyclohexyl with \( \text{SO}_2 \) and \( \text{O}_2 \).

Bjellqvist, B. and Reitberger, T.


17p.

344. Primary products of the radiolysis of methyl cyclohexyl ketone.

Borisenko, G.L., Revina, A.A. and Bakh, N.A.

pp. 249-51.

pp. 274-6.

345. The behavior of the solvated electron in ethanol-n-hexane mixtures.

Brown, B.J., Barker, N.T. and Sangster, D.F.

J. Physical Chemistry, 75(23), 1971.
pp. 3639-40.

346. Solvent dependence of the optical absorption spectrum of the solvated electron.

Dorfman, L.M., Jou, F.Y. and Wageman, R.

Berichte der Bunsengesellschaft für Physikalische Chemie, 75(7), 1971.
pp. 681-5.

347. Optical measurements on solvated electrons in pulse-irradiated liquid propane.

Gillis, H.A., Klassen, N.V., Teather, G.G. and Lokan, K.H.

pp. 481-3.

348. Pentabromocyclopentadienyl radical.

Graf, F. and Guenthard, H.H.

pp. 395-8.

349. Pulse radiolysis of liquid amides.

Hayashi, N., Hayon, E., Ibata, T., Lichtin, N.N. and Matsumoto, A.

pp. 2267-72.

350. Pyrene dimer cation as studied by pulse radiolysis.

Kira, A., Arai, S. and Imamura, M.

J. Chemical Physics, 54(11), 1971.
pp. 4890-4.
351. Pulse radiolysis of metal-organic compounds. I. Aluminiumalkyl-naphthalene-diethylether-system.
Lehmkuhl, H., Getoff, N. and Schwoerer, F.

Lilie, J.

353. Trapping of electrons by hydrocarbons and polar solutes.
Magnusson, L.B., Richards, J.T. and Thomas, J.K.

354. Study of the formation and reactions of cyclohexyl radicals by pulse radiolysis.
Makarov, V.I. and Kabakchi, S.A.

Newland, E.A.

356. Effect of alkali or alkoxide on yields of solvated electrons in the pulsed radiolysis of methanol or ethanol.

357. Effect of KOH on the kinetics of the disappearance of solvated electrons in irradiated methyl alcohol.
Pikaev, A.K., Sibirskaya, G.K. and Kabakchi, S.A.

358. Reactive capacity of the solvated electron in irradiated methyl alcohol.
Pikaev, A.K., Sibirskaya, G.K. and Kabakchi, S.A.
359. Direct observations of solvated electrons in liquid hydrocarbons.

Richards, J.T. and Thomas, J.K.


pp. 317-21.

360. Reactivity of excited states in cumene liquid and glass at low temperatures.

Richards, J.T. and Thomas, J.K.

J. Chemical Physics, 55(8), 1971.

pp. 3636-41.

361. Pressure shifts in properties of solvated electrons in alcohols and water.

Robinson, M.G., Jha, K.N. and Freeman, G.R.

J. Chemical Physics, 55(10), 1971.

pp. 4933-5.

362. Formation kinetics of the pyrene dimer cation observed by pulse radiolysis.

Rodgers, M.A.J.


pp. 107-8.

363. Pulse radiolysis studies of acetone solutions.

Rodgers, M.A.J.


pp. 1029-40.

364. Comments on steady-state and pulse radiolysis of liquid benzene-tetrachloromethane mixtures.

Schweiner, Z., Santar, I. and Bednar, J.


365. Spectroscopic investigation of cyclohexanol and cyclohexyl radicals and their corresponding peroxy radicals.

Simic, M. and Hayon, E.

J. Physical Chemistry, 75(11), 1971.

pp. 1677-80.

366. Semiquinone free radicals. Determination of acid dissociation constants by pulse radiolysis.

Willson, R.L.

J. Chemical Society D, (20), 1971.

pp. 1249-50.

367. Theoretical consideration of the electron-scavenging process in liquid hydrocarbons. II. Pulse irradiation.

Yamazaki, H. and Shinsaka, K.


pp. 2611-15.

368. Pulse radiolysis study on radical ions of styrene.

Yoshida, H., Noda, M. and Irie, M.


pp. 359-63.
369. Individual components of absorption spectra arising during pulsed irradiation of hydrocarbons saturated with oxygen.

Zimina, G.M. and Bakh, N.A.

pp. 457-60.
English translation of Khimiya Vysokikh Energii, 5(6), 1971.
pp. 515-18.

370. Solvated electron yield in the radiolysis of formamide.

Head, D.A.


371. Relaxation currents during the pulsed radiolysis of ketones.

Vannikov, A.V., Mal'tsev, E.I. and Bakh, N.A.

Doklady Physical Chemistry, 195(4-6), 1970.
pp. 945-7.
pp. 1131-4.

372. Aspects of the pulse radiolysis and γ radiolysis of alkyl iodides and their mixtures.

Capellos, C. and Swallow, A.J.

pp. 1077-83.
III. SOLIDS

373-381

373. Scavenging of electrons in 3-methylpentane glass at 77 K.
Kroh, J., Mayer, J., Wojciechowska, E. and Grodkowski, J.
pp. 2696-7.

374. Pulse radiolysis of alkali halide compounds.
Makarov, I.E., Zhukova, T.N. and Pikaev, A.K.
English translation of Khimiya Vysokikh Energii, 8(1), 1974.
pp. 74-9.

375. Localized electrons in the pulse radiolysis of Al2O3 single crystals doped with 0.05 atom % Cr.
Vinogradov, G.A. and Shubin, V.N.
High Energy Chemistry, 8(6), 1974.
pp. 453-5.
English translation of Khimiya Vysokikh Energii, 8(6), 1974.
pp. 528-31.

376. Short-lived optical absorption and luminescence spectra in pulsed radiolysis of single crystals of Al2O3.
Vinogradov, G.A. and Shubin, V.N.
Doklady Physical Chemistry, 219(4-6), 1974.
pp. 1194-6.
pp. 1397-9.

377. Spur recombination and diffusion processes in pulse irradiated inorganic glasses.
Barkatt, A., Ottolenghi, M. and Rabani, J.
pp. 2857-63.

Dietrich, H.B., Purdy, A.E., Murray, R.B. and Williams, R.T.
pp. 5894-901.

379. Charge buildup in electron-irradiated dielectrics.
Gross, B., Dow, J. and Nablo, S.V.
pp. 2459-63.

380. Radiation produced traps in crystalline ice.
Kawabata, K., Okabe, S. and Horii, H.
pp. 586-8.

381. Fast electron transfer reactions in a rigid matrix. Further evidence for quantum mechanical tunneling.
Miller, J.R.
382. Spectral characteristics and localized-electron yields in pulsed radiolysis of crystalline ice.

Pernikova, T.E., Shubin, V.N., Kabakchi, S.A. and Sydykova, D.S.


383. Short-lived optical absorption in molten quartz.


384. Short-lived color centers in pulse radiolysis of aluminum oxide crystals at high temperatures.

Vinogradov, G.A., Shubin, V.N., Levshina, T.M. and Zorin, D.M.


385. Pulse irradiation of diamonds.

Barkatt, A. and Ogdan, J.


386. Pulse radiolysis of sodium metaphosphate glasses.

Barkatt, A., Ottolenghi, M. and Rabani, J.


Campion, A., Ghormley, J.A. and Williams, F.


388. High energy electron induced emission in low temperature glasses containing adenine.

Fielden, E.M., Lillicrap, S.C. and Smith, G.J.


389. Formation of color centers in KCl(Tl) after linac electron pulse at room temperature.

Huzimura, R., Morishita, T. and Noda, M.

390. Optical absorption spectrum of trapped electron in crystalline ice at -150°C. Pulse radiolysis study.

Kawabata, K., Horii, H. and Okabe, S.

391. Pulse radiolysis of alcohol glasses at 77°K. Mechanism of electron trapping.

Kevan, L.

392. Reply to "Solvation of electrons in 3-methylhexane at 77°K".

Klassen, N.V., Gillis, H.A. and Walker, D.C.

393. Spectral shifts of trapped electrons in alkane glasses at 76°K.

Klassen, N.V., Gillis, H.A. and Teather, G.G.

394. Transient formations of color centers in KBr crystals under the pulsed electron beam.

Kondo, Y., Hirai, M. and Ueta, M.

395. Transient electrons in pulse-irradiated crystalline water and deuterium oxide ice.

Nilsson, G., Christensen, H., Pagsberg, P.B. and Nielsen, S.O.

396. Solvation of electrons in 3-methylhexane at 77°K.

Richards, J.T. and Thomas, J.K.


Shubin, V.N., Sharanin, Yu. I., Pernikova, T.E. and Vinogradov, G.A.

398. Spectral and kinetic characteristics of short-lived particles in a solid phase.

399. Transient surface damage.

Simons, M.

AD-748007, 1972.  
73p.

400. Pulsed radiolysis of polymethylmethacrylate containing aromatic compounds.

Borovkova, V.A., Bagdasar'yan, Kh.S., Chepel, D.V. and Shemarov, F.V.


401. Pulse radiolysis study of the mechanism of electron trapping in alcohol glasses at 77°K.

Kevan, L.


402. Absorption spectrum of trapped electrons in 3-methylhexane glass at 77°K.

Klassen, N.V., Gillis, H.A. and Walker, D.C.


403. Electrochemical detection of excited states during pulse radiolysis of crystalline ice.


404. Aromatic solute molecular ion and triplet state formation in polystyrene and polymethylmethacrylate.

Siegel, S. and Stewart, T.


405. Optical study of ion crystals by using pulsed electron beam. (In Japanese).

Ueta, M., Hiraı, M., Kondo, Y. and Yoshinara, T.


406. Short-term anneal of 30-MeV electron damage in high-purity n-type silicon.

Mallon, C.E. and Naber, J.A.

407. Determination of mobilities and yields of charged particles arising during the pulsed radiolysis of crystalline ice.

Sharanin, Yu.I., Shubin, V.N. and Dolin, P.I.

408. Investigation of aromatic triplet molecules in polystyrene by the method of pulsed radiolysis.

Shekk, Yu.B., Alfimov, M.V. and Nikiforov, V.I.

409. Short-term annealing in electron-irradiated p-type silicon.

Srour, J.R.
CONF-700713.

410. Optical study of ion crystals by using pulsed electron beam. VI. (In Japanese).

Ueta, M., Hirai, M., Kondo, Y. and Yoshinari, T.
Kakuriken Kenkyu Hokoku, Tohoku University, Sendai, 3(2), 1970. pp. 90-5.

411. Optical study of an ionic crystal by means of pulsed electron irradiation. IV. (In Japanese).

Ueta, M., Hirai, M., Kondo, Y. and Yoshinari, T.
IV. GASES

412. BrO disappearance in the pulse radiolysis of O$_2$ + Br$_2$ and N$_2$O + Br$_2$ systems.
   Cahill, R.W. and Riley, J.F.
   pp. 25-37.

413. Radiation-chemical laser using SF$_6$ + H$_2$ and CCl$_2$F$_2$ + H$_2$ mixtures at pressures up to 3 atm.
   pp. 183-4.
   pp. 407-10.

414. Rate constants for the quenching of N$_2$(A$^3\Sigma_u^+$, $v_A = 0 - 8$) by CO, CO$_2$, NH$_3$, NO, and O$_2$.
   Dreyer, J.W., Perner, D. and Roy, C.R.
   J. Chemical Physics, 61(8), 1974.

415. Pulse radiolysis.
   Hochanadel, C.J.

416. Energy transfer from the resonance states Ar($^1P_1$) and Ar($^3P_1$) to ethylene.
   Hurst, G.S., Wagner, E.B. and Payne, M.C.
   J. Chemical Physics, 61(9), 1974.
   pp. 3680-5.

417. Vacuum-ultraviolet emission from high-pressure xenon and argon excited by high-current relativistic electron beams.
   Koehler, H.A., Ferderber, L.J., Redhead, D.L. and Ebert, P.F.
   pp. 768-81.

418. Mechanism for decay and spontaneous radiative decay constants of the lowest-lying attractive excited states of Ne$_2$, Ar$_2$, and Kr$_2$.
   Oka, T., Rama Rao, K.V.S., Redpath, J.L. and Firestone, R.F.
   J. Chemical Physics, 61(11), 1974.
   pp. 4740-6.

419. Transferts d'énergie vibration-vibration et vibration-translation dans NO X$^2\Pi$ (v' = 2 et 1), par spectroscopie cinétique nanoseconde.
   Salvetat, G. and Clerc, M.
   pp. 1053-8.

420. Excited state production by nonionic processes in the pulse radiolysis of gaseous systems containing naphthalene.
   Sauer, M.C., Jr. and Mulac, W.A.
   pp. 22-7.

421. Light emission resulting from ion-recombination in the pulse-radiolysis of argon containing naphthalene or anthracene.
   Sauer, M.C., Jr. and Mulac, W.A.
   pp. 55-65.
422. Electron disappearance in pulse irradiated fluorocarbon gases.
Bansal, K.M. and Fessenden, R.W.

Bevan, P.L.T. and Johnson G.R.A.

Bevan, P.L.T. and Johnson, G.R.A.

Boyd, A.W., Willis, C. and Miller, O.A.

426. Deactivation of N2(A 3Σ_u^+, v = 0-7) by ground state nitrogen, ethane, and ethylene measured by kinetic absorption spectroscopy.
Dreyer, J.W. and Perner, D.

427. Localized excess electrons in water vapor.
Gaathon, A., Czapski, G. and Jortner, J.

428. De-excitation rates for excited xenon molecules.
Johnson, A.W. and Gerardo, J.B.

Le Calve, J. and Bourene, M.

430. Ionization chamber study of electron and ion decay in irradiated ammonia.
McCracken, D.R. and Armstrong, D.A.

431. Pulse radiolysis. Formation of the azide radical in gaseous nitrogen mixture.
Perner, D., Bosnali, M.W., Dreyer, J.W. and Suetterlin, L.

432. Pulse radiolysis of methane.
Rebbert, R.E., Lias, S.G. and Ausloos, P.

Rebberij R.E, and Ausloos, P.


434. Role of the molecular nitrogen (+) ion in the formation of the cyanogen radical by pulse radiolysis from a methane-molecular nitrogen-rare gas mixture. (In French).

Schmidt, M. and Clerc, M.


435. Transport of resonance radiation in argon.

Talmage, J.E., Jr., Hurst, G.S., Payne, M.G. and Wagner, E.B.


436. Activation energy for the gas phase reaction of hydrogen atoms with carbon monoxide.

Wang, H.Y., Eyre, J.A. and Dorfman, L.M.


437. Electron beam dissociation of fluorine.

Wilson, J., Chen, H-L., Fyfe, W., Taylor, R.L., Little, R. and Lowell, R.


438. Electronically excited iodine atoms, I(5^2P_1/2). Diffusion in noble gases, the mean radiative lifetime, and atomic recombination.


439. Kinetic investigation of CH, CH_3, C_2, and CN_2 radicals produced by pulse radiation by means of gas phase absorption spectroscopy.

Bosnalig, M.W. and Perner, D.


440. Reaction of cyanogen radicals with ammonia.

Bullock, G.E., Cooper, R., Gordon, S. and Hulac, W.A.


441. Kinetic behaviour of neutral and ionic species in the gas phase during their first collisions.

Clerc, M.


442. Nanosecond kinetic study of the rotational temperature decay of the CH(A^2Δ → X^2Π) emission produced by pulse radiolysis of methane and acetylene.

Clerc, M. and Schmidt, M.

443. Pulse radiolysis applied to gases. Absorption spectrum of the azide radical. (In Romanian).

Contineanu, M. and Schindler, R.N.

444. Pulse radiolysis of gases.
Dondes, S., Harteck, V.P., Carr, T. and Haskell, R.

Dreyer, J.W., Perner, D. and Roeth, E.P.
CONF-710517-Vol. 1.

446. Gas phase pulse radiolysis of hydrocarbon mixtures. Determination of the charge recombination rate coefficient and absolute rate constants of ion-molecule reactions of the t-butyl ion through a competitive kinetic method.
Lias, S.G., Rebbert, R.E. and Ausloos, P.

447. Pulse radiolysis of neopentane in the gas phase.
Rebbert, R.E. and Ausloos, P.

448. Studies of light emission in the pulse radiolysis of gases: electron-ion recombination in nitrogen.

Sauer, M.C., Jr. and Mulac, W.A.

449. Primary yields and mechanisms in the radiolysis of nitrous oxide from high intensity electron pulse irradiation of nitrous oxide-molecular oxygen mixtures.

Willis, C., Boyd, A.W. and Bindner, P.E.

450. Reactions of pulse radiolytically generated methyldyne radical with methane and other substances. (In German).

Bosnali, M.W. and Perner, D.

451. Kinetic study of species formed during the pulsed radiolysis of ammonia.

Clerc, M., Schmidt, M., Hagege-Iemman, J. and Belloni, J.

452. Separations of the absorption and emission spectra of certain transitions by pulse radiolysis at low pressure.

Clerc, M. and Lesigne, B.
453. Stimulated emissions of the first and second positive systems of N₂ produced by pulse radiolysis.

Clerc, M. and Schmidt, M.
pp. 668-71.
ANL-Trans-908.

454. Pulse radiolysis of ammonia gas. II. Rate of disappearance of the NH₂ (X²B) radical.

Gordon, S., Mulac, W.A. and Nangia, P.
J. Physical Chemistry, 75(14), 1971.
pp. 2087-93.

455. Pulse radiolysis studies. XX Kinetics of some addition reactions of gaseous hydrogen atoms by fast Lyman-α absorption spectro-photometry.

Hikida, T., Eyre, J.A. and Dorfman, L.M.
J. Chemical Physics, 54(8), 1971.
pp. 3422-8.

456. Ion-electron and ion-ion recombination coefficients in gases studied by pulse radiolysis.

Sauer, M.C., Jr. and Mulac, W.A.
pp. 1982-3.

457. The temperature dependence of electron attachment to CCl₄, CHCl₃ and C₆H₅CH₂Cl.

Warman, J.M. and Sauer, M.C., Jr.
pp. 273-82.

458. Absolute dosimetry of high intensity, 600 kV pulsed electron accelerator used for radiation chemistry studies of gaseous samples.

Willis, C., Boyd, A.W. and Miller, O.A.
pp. 428-43.


Willis, C., Boyd, A.W. and Miller, O.A.
pp. 1677-81.
AECL-3848.

460. Ionic reactions occurring in the irradiation of carbon dioxide-oxygen mixtures at very high dose rates.

Willis, C. and Bindner, P.E.
pp. 3463-72.

461. Radiative and non-radiative quenching of O²⁺(b¹Σ⁻₂) formed by electron pulsing in He + C₂ mixtures.

Clerc, M., Bourene, M., Le Calvé, J. and Lesigne, B.
J. de Chemie Physique et de Physicochimie Biologique.
pp. 234-8.
CONF-690566-1.
V. CONDUCTIVITY

462. Chemical reaction rates of quasi free electrons in nonpolar liquids.
Allen, A.O. and Holroyd, R.A.
pp. 796-807.

463. Conductimetric study of the kinetics of electrons in pulse irradiated n-hexane and cyclohexane at room temperature.
Baxendale, J.H., Keene, J.P. and Rasburn, E.J.

464. Electron-positive ion recombination in liquid isoctane.
Boriev, I.A. and Yakovlev, B.S.
pp. 205-7.
English translation of Khimiya Vysokikh Energii, 8(3), 1974.
pp. 246-249.

Kimura, T. and Freeman, G.R.
Canadian J. of Physics, 52, 1974.
pp. 2220-2.

466. Mobility of electrons in xenon in the critical region.
Kimura, T. and Freeman, G.R.
J. Chemical Physics, 60(10), 1974.
pp. 4081-2.

467. Formation of positive ions in the reaction of disulfides with hydroxyl radicals in aqueous solution.
Moeckel, H., Bonifacic, M. and Asmus, K.-D.
pp. 282-4.

468. Electron mobilities and ranges in liquid C\textsubscript{1}-C\textsubscript{3} hydrocarbons and in xenon: Effects of temperature and field strength.
Robinson, M.G. and Freeman, G.R.
pp. 440-6.

469. Electric field induced light emission and conductance-loss transients in liquid anthracene.
Shinsaka, K. and Freeman, G.R.
pp. 3559-61.

Shinsaka, K. and Freeman, G.R.
pp. 3556-9.
471. Epithermal electron ranges and thermal electron mobilities in liquid aromatic hydrocarbons.  
Shinsaka, K. and Freeman, G.R.  
pp. 3495-506.

472. Kinetics of ammonia detachment from reduced cobalt (III) complexes based on conductometric pulse radiolysis.  
Simic, M. and Lilie, J.  
pp. 291-2.

473. Conductometric pulse radiolysis study of the reaction of the solvated electron with 5-bromouracil in aqueous solutions at different pH values.  
Wagner, B.O., Klever, H. and Schulte-Frohlinde, D.  
pp. 86-8.

474. Temperature dependence of electron scavenging in liquid non-polar hydrocarbons.  
Yakovlev, B.S., Goriev, I.A. and Balakin, A.A.  

475. Excess electrons and positive charge carriers in liquid methane. I.  
Bakale, G. and Schmidt, W.F.  
pp. 511-8.

476. Electron mobilities in liquid olefins: Structure effects.  
Dodelet, J.-P., Shinsaka, K. and Freeman, G.R.  
pp. 1293-7.

Dodelet, J.-P., Shinsaka, K., Kortsch, U. and Freeman, G.R.  
pp. 2376-86.

478. Carrier transport in polyethylene terephthalate induced by pulsed electron beam.  
Hayashi, K., Yoshino, K. and Inuishi, Y.  
pp. 754-5.

479. Alternating current conductivity method for studies of pulse radiolysis in aqueous solutions. Determination of the state of ionization of several $\text{aq}^{-}$ adducts.  
Lilie, J. and Fessenden, R.W.  
pp. 674-7.
480. Ionic yields in methanol measured by conductometric pulse radiolysis.

Lilie, J., Chaudhri, S.A., Mamou, A., Graetzel, M. and Rabani, J.

pp. 597-600.

481. Change in the ionic conductivity of potassium chloride crystals during irradiation by x-rays and a high-power nanosecond electron beam.

Matlis, S.B. and Vaisburd, D.I.


482. X-radiolysis ion yields and electron ranges in liquid xenon, krypton, and argon: Effect of electric field strength.

Robinson, M.G. and Freeman, G.R.


483. Conductivity experiments in pulse radiolysis.

Asmus, K.-D.

pp. 417-38.

484. Decay of quasifree electrons in pulse-irradiated liquid hydrocarbons.

Bakale, G., Gregg, E.C. and McCreary, R.D.

J. Chemical Physics, 57(10), 1972.
pp. 4246-54.

485. The production of halide ion in the radiolysis of aqueous solutions of the 5-halouracils.

Bansal, K.M., Patterson, L.K. and Schuler, R.H.

pp. 2386-92.

486. Effect of electric field strength on the free ion yields in the X-radiolysis of liquids: Influence of molecular structure and temperature

Dodelet, J.-P., Fuochi, P.G. and Freeman, G.R.


Dodelet, J.-P., Freeman, G.R.

pp. 2667-79.
488. Molecular structure effects on the free-ion yields and reaction kinetics in the radiolysis of the methyl-substituted propanes and liquid argon: Electron and ion mobilities.

Fuochi, P.G. and Freeman, G.R.

J. Chemical Physics, 56(5), 1972.
pp. 2333-41.

489. Conductivity studies in aqueous solutions.

Hutton, A. and Schmidt, K.

pp. 1089-94.

490. Studies of transient conductivity induced in irradiated aqueous solutions using a high voltage pulse.

Hutton, A.M.

pp. 479-93.

491. Electrical conductivity of liquid ammonia during pulsed irradiation by fast electrons.

Khaikin, G.I., Zhigunov, V.A. and Dolin, P.I.

pp. 35-7.
pp. 140-2.

492. On the lifetime of trifluoromethyl radical in aqueous solution.

Lilie, J., Behar, D., Sujdak, R.J. and Schuler, R.H.

pp. 2517-20.

493. Electrical conductivity techniques for studying the kinetics of radiation-induced chemical reactions in aqueous solutions.

Schmidt, K.H.

pp. 439-68.

494. Mobility of excess electrons in liquid methane.

Schmidt, W.F. and Bakale, G.

pp. 617-9.

495. Theory of pulse radiolysis in an electrical field.

Sharanin, Yu.I., Shubin, V.N. and Dolin, P.I.

pp. 42-45.
English translation of Khimiya Vysokikh Energii, 6(1), 1972.
pp. 55-9.
496. Investigation of the charged particles in the pulse radiolysis of organic liquids.

Vannikov, A.V., Mal'tsev, E.I. and Rudnev, A.V.


497. Transient charged radiolysis products of organic liquids studied by electrical and optical methods.

Vannikov, A.V., Mal'tzev, E.I., Zolotarevskii, V.I. and Rudnev, A.V.


Yakovlev, B.S., Boriev, I.A., Novikova, L.I. and Frankevich, E.L.


499. Pulse radiolytic induced transient electrical conductance in liquid solutions. 4. Radiolysis of methanol, ethanol, 1-propanol, and 2-propanol.

Fowles, P.


500. Radiation chemical yield of OH⁻ as determined by conductometric pulse radiolysis.

Henglein, A., Rabani, J., Graetzel, M., Chaudhri, S.A. and Beck, G.


501. Conductometric pulse radiolysis determination of ionic yields and neutralization kinetics in liquid ethanol.

Rabani, J., Graetzel, M. and Chaudhri, S.A.


502. The radiation chemical yield of OH⁻ as determined by conductometric pulse radiolysis.

Rabani, J., Graetzel, M., Chaudhri, S.A., Beck, G. and Henglein, A.


503. Yields of free ions in the x-radiolysis of some simple saturated and unsaturated hydrocarbon liquids. Effects of molecular structure and temperature.

Robinson, M.G., Fuochi, P.G. and Freeman, G.R.

504. Measurement of the yield of charged particles emerging during pulse radiolysis in liquid methyl alkyl ketones.

Vannikov, A.V. and Mal'tsev, E.I.

pp. 154-5.
English translation of Khimiya Vysokikh Energii, 5(2), 1971.
pp. 174-5.

505. Study of charged particles by the pulse method during radiolysis of liquid hydrocarbons.

Vannikov, A.V., Kovalev, V.O. and Zolotarevskii, V.I.

pp. 40-3.
pp. 49-53.


Schmidt, K.H. and Buck, W.L.

pp. 473-483.
VI. EXPERIMENTAL TECHNIQUES

507-515

507. Some solid state photodetectors used in pulse radiolysis studies, operational details and performance.
Baxendale, J.H., Bell, C. and Mayer, J.

508. Electrochemical observation of a second order decay of radicals generated by flash photolysis or pulse radiolysis.
Britz, D. and Kastening, B.

Gordon, S., Schmidt, K.H. and Martin, J.E.

510. Direct computation in kinetic spectrophotometry.
Hansen, J.W. and Pedersen, P.B.

511. Pulse radiolysis and polarography, a review.
Henglein, A.

512. A 400 rad flash x-ray system for pulse radiolysis.
Hinsch, H., Scheel, H.E. and Niemann, E.G.

513. Variable temperature apparatus for pulse radiolysis studies at Whiteshell Nuclear Research Establishment.
Lopata, V.J., Geoffrey, L.E. and Dixon R.S.
AECL-4670, 1974. 18p.

514. Computer-controlled pulse radiolysis system.
Patterson, L.K. and Lilie, J.

515. Charge measuring unit of the pulsed electron beam in the Van de Graaff accelerator.
Sawicki, A. and Orzechowski, T.
516. Signal-compiling differential preamplifier for pulse radiolysis experiments.

Brown, B.J., Bell, J., Barker, N.T. and Sangster, D.F.


517. A gas discharge electron gun for the generation of submicrosecond pulses of high energy electrons.

Carmichael, C.H.H., Garnsworthy, R.K. and Mathias, L.E.S.


518. Proton pulse radiolysis.

Christensen, H.C., Nilsson, G., Thoamas, K.A. and Reitberger, T.


Eriksen, T.E.


520. Steady-state and time-resolved ESR studies of radiolytically produced radicals.

Fessenden, R.W.


521. Modified cryotip for spectrophotometric studies.

Greenstock, C.L. and Dunlop, I.


522. Mathematical analysis of flash photolysis and pulse radiolysis data.

Grossweiner, L.I.


523. Interfacing the Biomation 8100 transient recorder to a PDP-9 minicomputer for kinetic measurements.

Hobaugh, C.G., Patterson, L.K. and Fessenden, R.W.


524. Stroboscopic pulse radiolysis system capable of 20 picosecond time resolution.

Hunt, J.W., Bronskill, M.J. and Wolff, R.K.


525. Beam characterization and monitoring of a high intensity pulsed electron source.

Ling, C.C., Weiss, H. and Epp, E.R.

526. An automated facility for microsecond kinetic spectrophotometry.

Michaels, H.B., Basser, T.E., Taylor, W.B. and Hunt, J.W.


527. Special uv techniques in pulse radiolysis. Adsorption spectra of atomic deuterium and hydroxyl-d.

Nielsen, S.O., Pagsberg, P.B., Christensen, H. and Nilsson, G.


528. Electrical conductivity in the pulse radiolysis of aqueous solutions.

Schmidt, K.


529. Fast infrared detectors for use in pulse radiolysis.

Seddon, W.A., Selkirk, E.B. and Fletcher, J.W.


530. EPR detection of short-lived free radicals produced by pulsed radiolysis.

Smaller, B., Remko, J.R. and Avery, E.C.


531. On-line pulse radiolysis data handling program.

Soee Hoejberg, K., Pagsberg, P.B., Hansen, K.B. and Jakobsen, G.


532. Generation of picosecond pulse electron beams.

Ura, K. and Morimura, N.


533. Detection of electrons in pulse irradiated liquid hydrocarbons by microwave absorption.

Warman, J.M., De Haas, M.P. and Hummel, A.


534. General technique for the spectroscopy of transient absorbing species.

Aldrich, J.E., Foldvary, P., Hunt, J.W., Taylor, W.B. and Wolff, R.K.

535. Pulse photolysis apparatus based on a Z-pinch for study of fast processes.
Antonov, I.V., Korobov, V.E., Prokudin, V.S. and Chibisov, A.K.
pp. 963-965.
pp. 170-3.

536. Picosecond observations of some ionic and excited state processes in liquids.
Beck, G. and Thomas, J.K.
pp. 3856-63.

537. Design considerations for nanosecond pulse radiolysis studies using kinetic spectrophotometry.
Hunt, J.W., Greenstock, C.L. and Bronskill, M.J.
pp. 87-106.

538. Nanosecond pulse radiolysis techniques for the study of liquids using a 600 kV Febetron.
pp. 209-25.

539. Pulse radiolysis and polarography. II. Use of an on-line computer in the determination of the half-wave potentials of short-lived inorganic radicals.
Lilie, J.
pp. 1487-92.

540. Chemical dosimetry of pulsed electronic radiation.
Pikaev, A.K.
Russian Chemical Reviews, 41(9), 1972.
pp. 786-94.
pp. 1696-1712.

541. I_o [light intensity] subtraction unit for use with pulsed or d.c. light sources in kinetic spectrophotometry.
Selkirk, E.B. and Seddon, W.A.
AECL-4134, 1972.
8p.

542. Variable temperature cell housing for pulse radiolysis flow systems.
Wardman, P.
pp. 17-18.

543. Cerenkov reabsorption spectroscopy for subnanosecond pulse radiolysis studies.
Wallace, S.C. and Walker, D.C.
pp. 3780-93.
544. Analysis of very fast transient luminescence behavior.

Helman, W.F.

pp. 283-94.

545. Dose-distribution measurement of high-intensity pulsed radiation by means of holographic interferometry.

Hussmann, E.K. and McLaughlin, W.L.

Radiation Research, 47(1), 1971.
pp. 1-14.

546. Pulse radiolysis and polarography: half wave potentials for oxidation and reduction of short-lived organic radicals on the Hg electrode. (In German).

Lilie, J., Beck, G. and Henglein, A.

pp. 458-65.

547. Measurement of gas-phase ion-molecule reaction (kinetics) using pulse radiolysis, example of N$_2^+$('SIGMA+' sub-g)). (In German).

Perner, D. and Dreyer, J.W.

pp. 420-6.

548. Experiments concerning electrochemical production of solvated electrons. (In German).

Postl, D. and Schindewolf, U.

Berichte der Bunsengesellschaft für Physikalische Chemie, 75(7), 1971.
pp. 662-5.

549. Changing liquid samples in pulse radiolysis flow systems.

Seddon, W.A. and Selkirk, E.B.


550. Pulse radiolysis facilities at Chalk River.

Seddon, W.A., Willis, C., Young, M.J. and Selkirk, E.B.

66p.


Zagorski, Z.P. and Zimek, Z.

Nukleonika, 16(7-8), 1971.
pp. 359-61.

552. Pulse radiolysis instrumentation of the LAE 13-9 linear electron accelerator.

Zagorski, Z.P. and Zimek, Z.

9p.
CONF-710517-5.
553. Picosecond pulse radiolysis system. Studies of the solvated electron.

Bronskill, M.J.


554. ESR investigations during the radiolysis of aqueous solutions.

Eiben, K. and Fessenden, R.W.

3 p.

555. Measurement of the absorbed dose rate of accelerator pulsed radiation.

Golovachik, V.T., Dmitrievskii, I.M., Lebedev, V.N., Semenov, Yu.V. and Frolov, V.V.

Voprosy, Dozimetrii Zaschity Otizluchenii, (11), 1970.
pp. 49-54.

556. Self-absorption of the Cerenkov light as a quantitative indicator of radiolysis progress.

Zagorski, Z.P. and Zimek, Z.

pp. 335-42.
RADIOBIOLOGY

557-564

557. Selective free-radical reactions with proteins and enzymes. Pulse radiolysis and inactivation studies on papain.

Adams, G.E. and Redpath, J.L.

pp. 129-38.

558. The radiolysis of aqueous solutions of homocysteine-thiolactone hydrochloride.

Anderson, R.F. and Packer, J.E.

pp. 33-46.

559. Primary and secondary radicals in the radiation-induced inactivation of yeast alcoholdehydrogenase.

Badiello, R., Tamba, M. and Quintiliani, M.

pp. 311-9.

560. Transient and stable products in the pulse radiolysis of some dihydropyrimidine solutions.

Barszcz, D. and Fielden, E.M.

International J. of Radiation Biology and Related Studies in Physics, Chemistry and Medicine, 25(6), 1974.
pp. 539-53.

561. Selective free radical reactions with proteins and enzymes: the inactivation of α-chymotrypsin.

Baverstock, K.F., Cundall, R.B., Adams, G.E. and Redpath, J.L.

International J. of Radiation Biology and Related Studies in Physics, Chemistry and Medicine, 26(1), 1974.
pp. 39-46.

562. Study of peroxidase mechanisms by pulse radiolysis: II. Reaction of horseradish peroxidase compound I with O$_2$.

Bielski, B.H.J., Comstock, D.A., Haber, A. and Chan, P.C.

pp. 113-120.

563. One-electron reactions in some cobalamins.

Blackburn, R., Erkol, A.Y. and Phillips, G.O.

pp. 1693-1701.

564. Superoxide dismutase activity of low molecular weight Cu$^{2+}$-chelates studied by pulse radiolysis.

Brigelius, R., Spoettl, R., Bors, W., Lengfelder, E., Saran, M. and Weser, U.

pp. 72-5.
565. One-electron redox reaction of water-soluble vitamins. I. Nicotinamide (vitamin B5) and related compounds.

Bruehlmann, U. and Hayon, E.


566. Studies on the lipoic acid free radical.

Chan, S.W., Chan, P.C. and Bielski, B.H.J.


567. Absorption changes and decays of transients in irradiated papain.


568. The mechanism of action of superoxide dismutase from pulse radiolysis and electron paramagnetic resonance: evidence that only half the active sites function in catalysis.


Harel, Y. and Meyersstein, D.


570. Pulse radiolysis of oxytocin and lysine vasopressin.

Klassen, N.V., Purdie, J.W., Lynn, K.R. and D'Iorio, M.


571. Energy transfer between protein and DNA in bacteriophage T7.


572. Pulse radiolysis of glycine and alanine at pH 0-7.

Markovic, V., Nikolic, D. and Micic, O.I.


573. Interaction of hydrated electrons with phenylalanine and related compounds.

Mittal, J.P. and Hayon, E.

574. Intermediates produced from the one-electron reduction of nitrogen heterocyclic compounds in solution.
Moorthy, P.N. and Hayon, E.

575. Substituted pyridinyl radicals in aqueous solutions. Formation, reactivity, and acid-base equilibria.
Neta, P. and Patterson, L.K.

576. Interaction of hydrated electrons with the peptide linkage.
Rao, P.S. and Hayon, E.

577. On the role of the triplet state in the photoisomerization of retinal isomers.
Rosenfeld, T., Alchalel, A. and Ottolenghi, M.

578. Pulse radiolysis study of the free radical intermediates in the radiolysis of uracil.
Schragge, P.C. and Hunt, J.W.

579. Reduction of ferricytochrome c by some free radical agents.
Shafferman, A. and Stein, G.

580. Biochemical and biophysical studies on cytochrome c oxidase: XIV. The reaction with cytochrome c as studied by pulse radiolysis.
Van Buuren, K.J.H., Van Gelder, B.F., Wilting, J. and Braams, R.

581. Electron-transfer reactions studied by pulse radiolysis.
Willson, R.L.

582. Metronidazole ('Flagyl'): A pulse radiolysis and e.s.r. study.
Willson, R.L., Gilbert, B.C., Marshall, P.D.R. and Norman, R.O.C.

Adams, G.E. and Willson, R.L.

584. Radiation effects on α-chymotrypsin in aqueous solutions: pulse radiolysis and inactivation studies.
Adams, G.E., Baverstock, K.F., Cundall, R.B. and Redpath, J.L.
585. Selective free radical reactions with proteins and enzymes. Reactions of inorganic radical anions with trypsin.

Adams, G.E., Redpath, J.L., Bisby, R.H. and Cundall, R.B.


586. Radioluminescence of xanthene, thioxanthene, and selenoxanthene following pulse irradiation.

Badiello, B., Fielden, E.M. and Lillicrap, S.C.


587. Optical and kinetic properties of semireduced plastoquinone and ubiquinone: electron acceptors in photosynthesis.

Bensasson, R.V. and Land, E.J.


588. Uracilyl radical production in the radiolysis of aqueous solutions of the 5-halouracils.

Bhatia, K. and Schuler, R.H.


589. Reactions between nitroxyls and radiation-induced long-lived DNA-transients.

Brustad, T., Jones, W.B.G. and Wold, E.


590. Pulse-radiolysis study of a biological matrix.

Cercek, B. and Cercek, L.


591. Pulse radiolysis study of optical absorption and kinetic properties of dithiothreitol free radical.

Chan, P.C. and Bielski, B.H.J.


The reduction of cobalamin. A pulse radiolysis study.

Faraggi, M. and Leopold, J.G.


593. Bipyridylium quaternary salts and related compounds. V. Pulse radiolysis studies of the reaction of paraquat radical with oxygen. Implications for the mode of action of bipyridyl herbicides.

Farrington, J.A., Eberz, M., Land, E.J. and Fletcher, K.

594. Electron-transfer studies of nitrofurans using pulse radiolysis.
Greenstock, C.L. and Dunlop, I.
pp. 197-9.

595. Kinetics of competing free radical reactions with nitroaromatic compounds.
Greenstock, C.L. and Dunlop, I.
pp. 6917-9.

596. Kinetics of hydroxide and proton reactions of pyrimidines and purines by pulsed radiolysis.
Greenstock, C.L., Shragge, P.C. and Hunt, J.W.
pp. 1624-8.

597. Pulse radiolysis studies of nitrofurans. Chemical radiosensitization.
Greenstock, C.L. and Dunlop, I.
pp. 428-40.

598. Pulse radiolysis studies of nitrofurans. Radiation chemistry of nifuroxime.
Greenstock, C.L. and Dunlop, I.
pp. 1834-8.

599. Radiation chemical studies of the oxidation and reduction of nitrofurans. Oxidative denitration by hydroxyl radicals.
Greenstock, C.L., Dunlop, I. and Neta, P.
pp. 1187-90.

Hayon, E. and Simic, M.
J. American Chemical Society, 95(8), 1973.
pp. 2433-9.

601. Addition of hydroxyl radicals to pyrimidine bases and electron transfer reactions of intermediates to quinones.
Hayon, E. and Simic, M.
pp. 1029-35.

602. Pulse radiolysis study of sulfhydryl compounds in aqueous solution.
Hoffman, M.Z. and Hayon, E.
pp. 990-6.

603. Pulse radiolytic investigations of superoxide catalyzed disproportionation. Mechanism for bovine superoxide dismutase.
Klug-Roth, D., Fridovich, I. and Rabani, J.
J. American Chemical Society, 95(9), 1973.
pp. 2786-90.
604. Consecutive radical reactions and the role of the protein in the pulse radiolysis of enzymes.

Lichtin, N.N.


Lichtin, N.N., Ogdan, J. and Stein, G.


606. Reaction of cytochrome c with one-electron redox reagents. I. Reduction of ferricytochrome c by the hydrated electron produced by pulse radiolysis.

Lichtin, N.N., Shafferman, A. and Stein, G.


607. Reaction of hydrated electrons with ferricytochrome c.

Lichtin, N.N., Shafferman, A. and Stein, G.


608. Reactions of the hydroxyl radical with polynucleotides.

Michaels, H.B. and Hunt, J.W.


Neta, P. and Greenstock, C.L.


610. Oxidative denitration of 5-nitrouracil and 5-nitro-9-furoic acid by hydroxy radicals.

Neta, P. and Greenstock, C.L.


611. Semiquinone free radicals and oxygen. Pulse radiolysis study of one electron transfer equilibria.

Patel, K.B. and Willson, R.L.


612. Pulse radiolysis study of the reduction of spinach ferredoxin.

Pecht, I.


613. Chemical changes following γ-irradiation of benzylpenicillin in aqueous solution.


614. Interactions of bovine serum albumin with penicillins and cephalosporins studied by pulse radiolysis.


pp. 8-17.

615. A pulse radiolysis study of interactions in biological molecules.


pp. 517-27.

616. Pulse radiolysis of penicillamine and penicillamine disulfide in aqueous solution.

Purdie, J.W., Gillis, H.A., and Klassen, N.V.

pp. 3132-42.

617. Reactions of radiation-induced I*, I2, and I3 with alcohol dehydrogenase and aldolase.

Quintiliani, M., Shejbal, J., Davies, J.V., Ebert, M. and Gilbert, C.W.

pp. 243-55.

618. One-electron redox reactions of free radicals in solution. Rate of electron transfer processes to quinones.

Rao, P.S. and Hayon, E.

pp. 516-33.

619. Rate constants of electron transfer processes in solution: dependence on the redox potential of the acceptor.

Rao, P.S. and Hayon, E.

pp. 344-6.

620. Pulse radiolysis of dithiothreitol.

Redpath, J.L.

pp. 364-74.

621. Studies on the mechanism of chemical radioprotection by dimethyl sulphoxide.

Reuvers, A.P., Greenstock, C.L., Borsa, J. and Chapman, J.D.

pp. 533-6.

A radiation chemical study of the inactivation and active site composition of carboxypeptidase A.

Roberts, P.B.

pp. 143-52.
623. Comparison between the electron transfer reactions from free radicals and their corresponding peroxy radicals to quinones.

Simic, M. and Hayon, E.


624. Biochemical processes induced by radiation as studied by pulse radiolysis.

Swallow, A.J.


625. Reactions between nitroxyl free radicals and radiation-induced transients in nucleosides.

Wold, E. and Brustad, T.


626. The mechanism of oxidative denitration of 5-nitouracil and 5-nitro-2- furouic acid by hydroxyl radicals.

Zemel, H. and Neta, P.


627. Electron transfer effects in the radiolysis of aqueous solutions of enzymes.


Adams, G.E. and Willson, R.L.


629. Radical oxidation mechanisms in cellular radiosensitisation: electron transfer in the pulse radiolysis of aqueous nucleotide solutions.

Adams, G.E., Greenstock, C.L., Van Hemmen, J.J. and Willson, R.L.


630. Selective free radical reactions with proteins and enzymes: the inactivation of ribonuclease.

Adams, G.E., Bisby, R.H., Cundall, R.B., Redpath, J.L. and Willson, R.L.


631. Selective free radical reactions with proteins and enzymes: reactions of inorganic radical anions with amino acids.

Adams, G.E., Aldrich, J.E., Bisby, R.H., Cundall, R.B., Redpath, J.L. and Willson, R.L.

632. Nanosecond irradiation studies of biological molecules. I. Coenzyme Q 6 (ubiquinone-30).
Bensasson, R.V., Chachaty, C., Land, E.J. and Salet, C.
pp. 27-37.

Bielski, B.H.J.
Biochimica et Biophysica Acta, 289(1), 1972.
pp. 57-67.

634. Pulse radiolysis of aqueous papain.
Clement, J.R., Armstrong, D.A., Klassen, N.V. and Gillis, H.A.
pp. 2833-40.

635. The radiosensitivity of cultured mammalian cells exposed to single high intensity pulses of electrons in various concentrations of oxygen.
Epp, E.R., Weiss, H., Djordjevic, B. and Santomasso, A.
Radiation Research, 52(2), 1972.
pp. 324-32.

636. Elementary steps in the action of electron transfer proteins.
Faraggi, M. and Pecht, I.
Israel J. of Chemistry, 10(6), 1972.

Fel, N.S., Za ozerskaya, L.A. and Dolin, P.I.
pp. 418-19.
English translation of Khimiya Vysokikh Energii, 6(5), 1972.
pp. 475-6.

638. Kinetic investigation of the iodine-amylose reaction by pulsed radiolysis. (In German).
Graetzel, M., Henglein, A., Scheffler, M., Boessler, H.M. and Schulz, R.C.
pp. 72-81.

639. One-electron reduction of the disulfide linkage in aqueous solution. Formation, protonation, and decay kinetics of the RSSR⁻ radical.
Hoffman, M.Z. and Hayon, E.
J. American Chemical Society, 94(23), 1972.
pp. 7950-7.
640. Pulse radiolysis of 9,10-anthraquinones. 1. Radicals.
Hulme, B.E., Land, E.J. and Phillips, G.O.

641. Pulse radiolysis of 9,10-anthraquinones. 2. Triplet excited states.
Hulme, B.E., Land, E.J. and Phillips, G.O.

642. Direct demonstration of the catalytic action of superoxide dismutase through the use of pulse radiolysis.
Klug-Roth, D., Rabani, J. and Fridovich, I.
pp. 4839-42.

643. Fast consecutive radical processes within the ribonuclease molecule in aqueous solutions. II. Reaction with OH radicals and hydrated electrons.
Lichtin, N.N., Ogdan, J. and Stein, G.
Biochimica et Biophysica Acta, 276(1), 1972.
pp. 124-42.

644. The reduction of ferricytochrome c studied by pulse radiolysis.
Nilsson, K.
Israel J. of Chemistry, 10(6), 1972.

645. The reduction of ferrocyanochrome c to ferrocytochrome c studied by pulse radiolysis.
Nilsson, K. and Pagsberg, P.B.
pp. 1311-7.

646. Transient radicals of DNA bases by pulse radiolysis. Effects of cysteine and cysteamine as radioprotectors.
Nucifora, G., Smaller, B., Remko, J.R. and Avery, E.C.
Radiation Research, 49(1), 1972.
pp. 96-111.

647. Pulse radiolysis and inactivation of trypsin.
Ovadio, J.
Israel J. of Chemistry, 10(6), 1972.
pp. 1067-77.

648. Micellar effects of Cl^- reactivity: reactions with surfactants and pyrimidines.
Patterson, L.K., Bansal, K.M., Bogan, G., Infante, G.A., Fendler, E.J. and Fendler, J.H.
J. American Chemical Society, 94(26), 1972.
pp. 9028-32.

649. Pulse radiolysis studies of 5-halouracils in aqueous solutions.
Patterson, L.K. and Bansal, K.M.
650. Electron transfer to ferricytochrome. Reaction with hydrated electrons and conformational transitions involved.

Pecht, I. and Faraggi, M.


651. Decay of the $\text{HO}_2$ and $\text{O}_2^-$ radicals catalyzed by superoxide dismutase. A pulse radiolytic investigation.

Rabani, J., Klug-Roth, D. and Fridovich, I.


652. Pulse radiolysis study of superoxide dismutase.

Rotilio, G., Bray, R.C. and Fielden, E.M.


653. Splitting of thymine dimer by hydrated electrons.

Santus, R., Helene, C., Ovadia, J. and Grossweiner, L.I.


654. The free-radical cleavage of the disulfide bond (studied by pulse radiolysis).

Shafferman, A.


655. Determination of rate constants for the reactions of $\text{H}$, $\text{OH}$ and $e_{aq}^-$ with indole-3-acetic acid and other plant hormones.

Shetiya, R.S., Rao, K.N. and Shankar, J.


656. Model of radiation sensitization by quinones.

Simic, M. and Hayon, E.


657. Alkyl phosphate cleavage of aliphatic phosphates induced by hydrated electrons and by OH radicals.

Sonntag, C.W., Ansorge, G., Sugimori, A., Omori, T., Koltzenburg, G. and Schulte-Frohlinde, D.


Adams, G.E., Willson, R.L., Bisby, R.H. and Cundall, R.B.


659. The $\gamma$- and pulse radiolysis of selenocystine.

Badiello, R. and Tamba, M.


CONF-71095.


669. Free radical intermediates produced in the pulse radiolysis of simple peptides in aqueous solution.

Hayon, E. and Simic, M.


670. Pulse radiolysis study of cyclic peptides in aqueous solution. Absorption spectrum of the peptide radical -NH-CHCO-.

Hayon, E. and Simic, M.


Iddon, B., Phillips, G.O., Robbins, K.E. and Davies, J.V.


672. One-electron reactions in biochemical systems as studied by pulse radiolysis. IV. Oxidation of dihydronicotinamide-adenine dinucleotide.

Land, E.J. and Swallow, A.J.


673. One-electron reactions in biochemical systems as studied by pulse radiolysis. V.5. cytochrome c.

Land, E.J. and Swallow, A.J.


674. Optical absorption spectrum of half-reduced ubiquinone.

Land, E.J., Simic, M. and Swallow, A.J.


675. Pulse radiolysis and inactivation of trypsin.

Masuda, T., Ovadia, J., Grossweiner, L.I.


676. Reduction of copper (II) in fungal laccase by hydrated electrons.

Fecht, I. and Feraggi, M.


677. Interaction of chondroitin-4-sulphate with cationic dyes.


678. Radiation studies of aryl glycosides. Part III. The reactivity of aryl glucosides toward hydroxyl radicals and hydrated electrons.

Phillips, G.O., Filby, W.G., Moore, J.S. and Davies, J.V.

679. Pulse radiolysis of penicillamine in aqueous solution: the thyl radical and the disulphide radical anion.

Purdie, J.W., Gillis, H.A. and Klassen, N.V.

pp. 1163-5.

680. Pulse radiolysis studies of the radiosensitizer Nor-pseudo-pelletierine-N-oxyl (NPPN): II. Reactions involving biological radicals.

Roberts, P.B. and Fielden, E.M.

pp. 363-71.

681. Investigations of early radiation chemical effects and their significance in biological systems.

Sangster, D.F.

pp. 481-96.
CONF-710314.

682. Factors affecting the rate of hydrated electron attack on polynucleotides.

Schragge, P.C., Michaels, H.B. and Hunt, J.W.

pp. 598-611.

683. Radical reactions of N-ethylmaleimide in radiation sensitization.

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pp. 589-92.


Simic, M. and Hayon, E.

pp. 244-55.

685. Nanosecond pulse radiolysis studies of aqueous thymine solutions.

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pp. 3815-21.

686. Pulse radiolysis studies of electron transfer in aqueous quinone solutions.

Willson, R.L.


687. Pulse radiolysis studies on reaction of triacetoneamine-N-oxyl with radiation-induced free radicals.

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pp. 3008-19.

688. Primary radiolysis reactions of non-alkaline aqueous solutions of pyrimidine bases.

Fel, N.S. and Dolin, P.I.

pp. 337-8.
English translation of Khimiya Vysokikh Energii, 4, 1970.
pp. 376-7.


Loman, H. and Ebert, M.

pp. 369-79.
690. Radiation chemistry of systems of biological interest.

Singh, B.B.

pp. 100-8.
BARC-489:CONF-700214.
VIII. REVIEWS

691. Pulse radiolysis.
Dorfman, L.M.
pp. 463-519.

692. Radiation chemistry of ethanol.
Review of the data on yields, reaction rate parameters, and
spectral properties of transients.
Freeman, G.R.
National Standard Reference Data Series, National Bureau of
33 p.

693. Acid-base properties of free radicals in solution.
Hayon, E. and Simic, M.

694. Application of pulse radiolysis to biological macromolecules.
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pp. 56-65.

695. Pulse radiolysis in the USSR.
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696. Contributions of pulse radiolysis to general chemistry.
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CONF-700610-P1.

697. Progress and prospects in physics and chemistry: summing up.
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pp. 633-41.
CONF-700610-P2.

698. Recent developments in the radiation chemistry of pyrimidine bases in aqueous solutions.
Infante, G.A., Fendler, E.J. and Fendler, J.H.

699. Pulse radiolysis.
Matheson, Max S.
pp. 247-59.
CONF-700610-P1.

700. Radiation chemistry. (In German).
Spitsyn, V.I.
Isotopenpraxis, 9(9), 1973.
Swallow, A.J.  
International Review of Science.  
Butterworths.  
pp. 263-91.

Swallow, A.J.  
285 p.

703. New insights into primary mechanisms of gas phase radiolysis by yield measurements at high dose rates.  
Willis, C. and Boyd, A.W.  
Advances in Radiation Research.  
pp. 361-8.  
CONF-700610-P2.

704. Pulse radiolysis. New approaches to the classical technique.  
Zagorski, Z.P.  
Nukleonika, 18(9), 1973.  
pp. 383-401.

705. Radiation chemical mechanisms in radiation biology.  
Adams, G.E.  
pp. 125-208.

706. Use of free radical probes in the study of mechanisms of enzyme inactivation.  
Adams, G.E., Redpath, J.L., Bisby, R.H. and Cundall, R.B.  
pp. 1079-93.

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p. 1052.

Buehler, R.E.  
pp. 233-58.

709. Reactions of solvated electrons.  
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pp. 271-97.

Dolin, P.I.  
Radiatsionnaya i Khimiya, 2, 1972.  
pp. 33-8.

Greenshields, H. and Seddon, W.A.  
AECL-4066, 1972.  
46 p.
712. Absorption spectra of intermediates formed during radiolysis and photolysis. Part II.

Habersbergerova, A., Janovksy, I. and Kourim, P.

pp. 123-231.

713. Radiation chemistry of aqueous solutions.

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714. Pulse radiolysis. Very fast reactions and applications to biochemistry.

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pp. 105-31.

715. Short-lived transients.

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pp. 1-74.

716. The physical chemistry of the electron in a condensed medium.

Pikaev, A.K. and Brodskiǐ, A.M.

pp. 201-13.

English translation of Khimiya Vysokikh Energiǐ, 6(3), 1972.
pp. 224-238.

717. Triplet state formation in pulse radiolysis.

Singh, A.

pp. 1-69.

718. Selected specific rates of reactions of the solvated electron in alcohols.

Watson, E., Jr. and Roy, S.

NSRDS-NBS 42, 1972.
13 p.

719. Radiation chemistry of oxygenated aqueous solutions.

Czapski, G.

pp. 171-208.

720. Electrons in condensed media.

Dainton, F.S.

Berichte der Bunsengesellschaft für Physikalische Chemie, 75(7), 1971.
pp. 608-18.

721. Pulse radiolysis of gases.

Firestone, R.F. and Dorfman, L.M.

Actions Chimiques et Biologiques des Radiations, 15, 1971.
pp. 7-46.

722. Applications of the hydrated electron for studying reaction mechanisms in organic and inorganic chemistry.

Henglein, A.

Berichte der Bunsengesellschaft für Physikalische Chemie, 75(7), 1971.
pp. 622-3.
723. Aufklärung komplexer Reaktionsmechanismen durch Pulsradiolyse.

Henglein, A.


724. Applicability of the Bronsted relation to reactions of the hydrated electron.

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725. Observation of excited states by pulse radiolysis.

Thomas, J.K.


726. Production of excited states by lasers and ionizing radiation.

Thomas, J.K.


727. Standardization of hydroxyl radical rate data from radiation chemistry.


728. Pulse radiolysis studies on reactive intermediates in organic chemical processes.

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729. Influence of track structure in radiation chemistry.

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730. Information from induced electrical conductance and from the non-homogeneous kinetics of charge-scavenging reactions.

Freeman, G.R.


Hart, E.J.


732. Some optical properties of the hydrated electron.

Hart, E.J.


733. Radiation chemistry of aqueous solutions.

Scholes, G.

734. The solvated electron in radiation chemistry. (In Russian).

Pikaev, A.K.

pp. 458.
TT-70-50157, 1971. N.T.I.S.
395 p.
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