

Gordon Conference on Radiation Chemistry

June 25-29, 1984, Brewster Academy, Wolfeboro, NH, USA

Speaker	Title	Disc Leader
Monday, June 25		
AM		
C. L. Braun Dartmouth College Hanover, NH	Picosecond Geminant Charge Pair Recombination	R. A. Holroyd Brookhaven Natl. Lab.
W. F. Schmidt Hahn-Meitner Inst. Berlin	Photoconductivity of Nonpolar Liquids and Solutions Induced by UV Light	"
PM		
S. Lipsky Univ. of Minnesota	Ionizing Transitions in Nonpolar Liquids	J. M. Warman Reactor Inst. Delft
Tuesday, June 26		
AM		
N. V. Klassen	Pulse Radiolysis Studies of (Non- Aromatic) Hydrocarbon Cations	L. M. Dorfman Ohio State Univ.
Y. Tabata Univ. of Tokyo	Study of Ionization and Excitation of Hydrocarbons Using a New pico- second Pulse Radiolysis System	D. C. Walker Univ. of B C.
PM		
J. A. LaVerne Univ. of Notre Dame	Radiation Chemistry Studies of Track Effects with ^7Li , ^9Be , ^{11}B and ^{12}C Ions	J. L. Magee Univ. of Cal. Berkeley
Wednesday, June 27		
AM		
J. R. Miller Argonne Natl. Lab.	Electron Tunneling in Glasses and Liquids	M. D. Newton Brookhaven Natl. Lab.
R. G. Lawler Brown Univ. Providence, RI	Concentration Effects in ESR Spectra of Transient Radicals	P. W. Percival Simon Fraser Univ., BC
PM		
G. N. R. Tripathi Univ. of Notre Dame	Time-Resolved Resonance Raman Spectroscopy of Free Radicals and Excited States	S. Gordon Argonne Natl. Lab.
R. Wilbrandt Riso Natl. Lab Denmark	Resonance Raman Spectroscopy of Excited states and Free Radicals	"

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PREPARATION OF POLYACRYLAMIDE HYDROGELS OF HIGH WATER RETENTION BY RADIATION TECHNIQUES AND HYDROLYSIS —SUPER-WATER-ABSORBENT

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(Changchun Institute of Applied Chemistry, Academia Sinica)

Zhao Xing
(Xingjiang Institute of Physics, Chinese Academy of Sciences)

ABSTRACT Polyacrylamide hydrogel I (PAM-HG I) which retains distilled water (350 g/g) has been obtained by radiation crosslinking of polyacrylamide ($M_w 9.8 \times 10^6$). Polyacrylamide hydrogel II (PAM-HG II) was prepared by alkaline hydrolysis of PAM-HG I to enhance its hydrophilic character. In contact with water PAM-HG II forms a "superabsorbent" gel which retains very large amount of water (up to 958 g/g). But the water retention is strongly reduced in NaCl and $CaCl_2$ aqueous solutions when $pH < 4$ and > 10 .

KEY WORDS Radiation crosslinking; Suspension hydrolysis; Polyacrylamide hydrogels; Superabsorbent of water.

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Thursday, June 28

AM

P. Wardman
Mt. Vernon Hospital
England

Redox Properties of Free Radicals
and the Kinetic Consequences

P. Neta
Nat'l. Bureau
of Standards

A. Harriman
Royal Institution
London

Catalyzed Decay of Porphyrin Radical
Cations in Aqueous Solution

D. Meisel
Argonne Natl.
Lab.

PM

Poster Session

M. C. Sauer, Jr.
Argonne Natl.
Lab.

Friday, June 29

AM

D. Schulte-Frohlinde
Max-Planck-Inst.
Mülheim

Chemistry of Radiation-Induced
Cell Death

J. F. Ward
Univ. of Calif
San Diego

W. A. Bernhard
Univ. of Rochester

The Uses of Single Crystal ESR to
Predict Free Radical Events in the
Solid State Radiation Chemistry of DNA

M. A. J. Rodgers
Univ. of Texas
Austin

Conference Chairman

R. W. Fessenden, University of Notre Dame

Conference Vice-Chairman

M. C. Sauer, Jr., Argonne National Laboratory