

OCT 15 1937

MISSOURI STATE BOARD OF HEALTH
BUREAU OF VITAL STATISTICS
CERTIFICATE OF DEATH

Do not use this space.

33607

1. PLACE OF DEATH

County Benton
Township West White
City (No. _____) _____ St. _____ Ward _____

Registration District No. 60
Primary Registration District No. 5093

File No. _____
Registered No. 12

2. FULL NAME Mrs. Amanda Gilmore Christian

(a) Residence, No. _____ St. _____ Ward _____
(Usual place of abode) (If nonresident, give city or town and State)

Length of residence in city or town where death occurred yrs. mos. ds. How long in U. S., if of foreign birth? yrs. mos. ds.

PERSONAL AND STATISTICAL PARTICULARS

MEDICAL CERTIFICATE OF DEATH

3. SEX Female 4. COLOR OR RACE White 5. SINGLE, MARRIED, WIDOWED, OR DIVORCED (write the word) Married

21. DATE OF DEATH (MONTH, DAY, AND YEAR) Sept. 16, 1937

5A. IF MARRIED, WIDOWED, OR DIVORCED HUSBAND OF (OR) WIFE OF Church C. Christian

22. I HEREBY CERTIFY, That I attended deceased from July 6, 1937 to Sept. 16, 1937.
I last saw her alive on Sept. 16, 1937. Death is said to have occurred on the date stated above, at 2:00 P. M.
The principal cause of death and related causes of importance were as follows:

6. DATE OF BIRTH (MONTH, DAY, AND YEAR) Feb. 9, 1869

Gastric Ulcer and Anemia Date of onset 6/24-37

7. AGE YEARS MONTHS DAYS If LESS than 1 day, _____ hrs. or _____ min.
68 7 7

OCCUPATION
8. Trade, profession, or particular kind of work done, as spinner, sawyer, bookkeeper, etc. At Home
9. Industry or business in which work was done, as silk mill, saw mill, bank, etc.
10. Date deceased last worked at this occupation (month and year) _____
11. Total time (years) spent in this occupation _____

Other contributory causes of importance: 1170

12. BIRTHPLACE (CITY OR TOWN) unknown
(STATE OR COUNTRY) Indiana

FATHER
13. NAME James Gilmore

14. BIRTHPLACE (CITY OR TOWN) unknown
(STATE OR COUNTRY)

MOTHER
15. MAIDEN NAME unknown

16. BIRTHPLACE (CITY OR TOWN) "
(STATE OR COUNTRY) "

17. INFORMANT Church C. Christian
(ADDRESS) Windsor, Missouri

18. BURIAL, CREMATION, OR REMOVAL
PLACE Windsor, Mo. DATE Sept. 17, 1937

19. UNDERTAKER Huston-Turner
(ADDRESS) Windsor, Missouri

20. FILED Sept. 21, 1937 Mrs. Amy K. Rhodes
Registrar.

Name of operation _____ Date of _____
What test confirmed diagnosis? Clinical Was there an autopsy? No

23. If death was due to external causes (violence), fill in also the following:
Accident, suicide, or homicide? _____ Date of injury _____, 19____
Where did injury occur? _____
(Specify city or town, county, and State)
Specify whether injury occurred in industry, in home, or in public place.

Manner of injury _____
Nature of injury _____

24. Was disease or injury in any way related to occupation of deceased? No
If so, specify _____
(Signed) F. A. Blackmore, M. D.
(Address) Windsor, Mo.

CAUSE OF DEATH IN plain terms, so that it may be properly classified. Exact statement of OCCASION is very important.

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THE UNIVERSITY OF CHICAGO
DEPARTMENT OF CHEMISTRY
5800 S. UNIVERSITY AVENUE
CHICAGO, ILLINOIS 60637

TO: THE DIRECTOR, NATIONAL BUREAU OF STANDARDS
433 RIVERSIDE DRIVE
WASHINGTON, D. C. 20535

FROM: DR. J. H. GOLDSTEIN
DEPARTMENT OF CHEMISTRY
UNIVERSITY OF CHICAGO
5800 S. UNIVERSITY AVENUE
CHICAGO, ILLINOIS 60637

SUBJECT: 13C NMR SPECTROSCOPY OF POLYMERIZATION

Enclosed for the Bureau are two copies of a report on the 13C NMR spectroscopy of polymerization. The report describes the synthesis and characterization of a series of polymers and the results of their 13C NMR spectra. The polymers were prepared by the polymerization of acrylonitrile in the presence of various monomers and catalysts. The 13C NMR spectra were recorded at 125 MHz in CDCl3. The spectra show the presence of several peaks corresponding to the different carbon environments in the polymers. The chemical shifts of these peaks are listed in the table below.

Carbon Environment	Chemical Shift (ppm)
CH2 (backbone)	20-30
CH (backbone)	40-60
CH3 (end group)	10-15
CH2 (branch)	15-25
CH (branch)	30-40
CH3 (branch)	10-15

The results show that the 13C NMR spectra of the polymers are sensitive to the monomer and catalyst used in the polymerization. The spectra of the polymers prepared with different monomers and catalysts are shown in the figures. The spectra of the polymers prepared with the same monomer and catalyst but different polymerization conditions are also shown. The spectra of the polymers prepared with the same monomer and catalyst but different polymerization conditions are also shown. The spectra of the polymers prepared with the same monomer and catalyst but different polymerization conditions are also shown.