ORGANIC ELECTRONIC SPECTRAL DATA

Volume II 1953-1955

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INTRODUCTION TO THE SERIES

With the advent of photoelectric spectrophotometry, the volume of published ultraviolet spectral data increased sharply, quickly making the existing reference books obsolete and presenting Chemical Abstracts with a nearly impossible task. The need for collections of data was recognized by many workers and led to the publishing of catalogs of data in various fields (A. P. I., Friedel and Orchin, etc.) and a catalog of references (Hershenson). As yet, however, no comprehensive catalog of ultraviolet data has appeared.

In the spring of 1956 the editors of the present Volumes I and II envisaged, as a cooperative effort of a small group of chemists, a book reporting data for 1946-1955, found by a page by page search of journals. The enormity of the task undertaken was first realized when the number of journals covered passed 70 and the number of contributors (who reported 45,000 sets of data from 10,000 references and expended 6,500 hours) passed 50.

With the abundance of published data exceeding by far our initial expectations, it was deemed advisable to divide the compilation into two volumes, with one of us (MJK) accepting responsibility for Volume I (1946-1952) and the other (HEU) acting in the same capacity for Volume II (1953-1955).

In order to carry out this large effort efficiently and ensure its continuance, the group was incorporated as Organic Electronic Spectral Data, Inc., in May 1957. Officers and editors for Volumes I and II were elected and arrangements for supplements were put into effect.

Volume III, covering 1956-1957, is presently in preparation and will be edited by L. A. Kaplan and O. H. Wheeler. Abstracting for Volume IV covering 1958-1959 is almost complete. This volume will be edited by J. P. Phillips and F. C. Nachod. Volume V, which will cover 1960-1961, will be under the editorship of J. D. Cawley and R. E. Lyle.

H. E. Ungnade
M. J. Kamlet

PREFACE

The purpose and scope of this series are described in the "Introduction to the Series." For volume II, the data cards prepared by the abstractors were processed in part by the Department of Organic Chemistry, Hebrew University, under a grant from the National Science Foundation, and in part at Los Alamos.

Volumes I and II of the project were aided financially by American Cyanamid Company, Applied Physics Corporation, Beckman Instruments, Inc., and the Fisher Scientific Company to whom the editors wish to express their thanks. The editors also wish to express their gratitude to the National Science Foundation, whose generous grant made possible the processing of the data.

The editor is grateful to Pauline Ungnade, Genevieve Martinez, Rosemary O'Connor, Ruth Nelson, and Billie Green for processing, typing, and proofreading, and to the Los Alamos Scientific Laboratory for the use of its library facilities.

Corrections and suggestions will be welcomed.

Herbert E. Ungnade

Los Alamos, New Mexico
May 1960

ORGANIZATION AND USE OF THE DATA

The visible and ultraviolet spectral data contained in this volume were abstracted from the journals listed in the Reference Section. In order to be included, the data had to satisfy the following minimum requirements: The investigated compound must be sufficiently pure to give satisfactory analyses and definable by a molecular formula. The solvent or phase should be stated and the spectral data complete enough so that wavelengths of maximal absorption and molar absorptivities could be computed even if they were not stated in the original publication. Later, it was decided to include data for which no solvent was given, provided spectral data with solvents did not exist for such compounds. Spectral data which were taken by authors directly from other publications were not abstracted unless the references were to obscure journals or those prior to 1946.

All entries in the compilation are organized according to the molecular formula index system now used by Chemical Abstracts and Beilstein, so that the work is usable without a separate index. The compound names as far as possible have been made to conform with the Chemical Abstracts Index system of nomenclature. The names of the compounds are listed in the same order as in Chemical Abstracts except for disubstituted benzenes which are given in the order, o, m, p, to facilitate changing to and from numerical designations for these isomers.

The solvent for the compound or the phase (e.g., gas) appears in the second column, abbreviated in a system which is essentially descriptive, unambiguous, and easily understood by most chemists. A key to the abbreviations follows.

The numerical data in the third column represent wavelength values in millimicrons for all maxima, shoulders, and inflections, and the logarithms of the corresponding molar absorptivities in parentheses. Shoulders and inflections are distinguished by the letter s. In spectral curves with superimposed vibrational fine structures no attempt was made in every case to read the maxima. Only the main maximum was entered in these and labelled with the letter f. Numerical values reported by authors are given to 0.1 millimicron for wavelength and 0.01 unit of the logarithm of the molar absorptivity; data read from curves are underlined and given to the nearest millimicron and 0.1 unit of the logarithm of the molar absorptivity. Logarithms smaller than one are given as negative numbers. Numbers with degree indicate temperatures in centigrade at which the spectra were determined. Changing spectra and other anomalies are indicated by the abbreviation anom. No numerical data are given for featureless spectra.

The reference column contains the code number of the journal, the page number of the paper, and the last two ciphers indicate the year. A small letter is used for journals issued in more than one volume per year. The complete list of all articles with authors, name, and code number of the journal is found in the Reference Section, with journals arranged in the order of their code numbers and articles in the order of year, volume, and page.

A more detailed description of the presentation of the data and recommendations were published in Anal. Chem. 31, 42A, February 1959.

SOLVENT ABBREVIATIONS

The solvent column in the Data Section gives the state of the absorbing compound, i.e., gas, liq., or solid, or in the case of solution spectra, the nature and composition of the solvent. The concentrations of solutions are given in precise numerical values when these are available; otherwise, in terms such as dil., conc., or sat. Terms descriptive of solutions are written before the names of the solutes, e.g., 5%, 1 N, or 0.1 M NaOH; pH values are written after the names, as in PO_4 buffer, pH 7. In water solutions, the abbreviation aq. precedes the name (0.1 M aq. NaOH) while for other solutions the solvent is given after the solute name (KOH in 50% EtOH). Solvent mixtures are listed alphabetically, e.g., $CHCl_3$-dioxan-MeOH (1:2:4). Spectra with no solvents given are abbreviated n.s.g. Abbreviations for solvents are listed in the following table. Other common solvents and inorganic solutes are given by molecular formulas.

$AcNH_2$	acetamide
$AcNMe_2$	dimethylacetamide
Ac_2O	acetic anhydride
n-AmOH	n-amyl alcohol
i-AmOH	isoamyl alcohol
n-BuCl	n-butyl chloride
t-BuCl	tert-butyl chloride
$n\text{-}BuNH_2$	n-butylamine
n-BuOH	n-butyl alcohol
Bu_3PO_4	tributyl phosphate
carbitol	diethylene glycol ethyl ether
cellosolve	2-ethoxyethanol
$CH_2ClCOOMe$	methyl chloroacetate
$C_6H_{11}SiH_3$	cyclohexylsilane
C_6H_{12}	cyclohexane
$i\text{-}C_8H_{18}$	isooctane or trimethylpentane
$C_{10}H_7Cl$	chloronaphthalene
DMF	dimethylformamide
2-Ethexanol	2-ethylhexanol
Et_3N	triethylamine
EtOAc	ethyl acetate
EtOH	ethyl alcohol (90-100%)
Et_2O	diethyl ether
N-Etpiperidine	N-ethylpiperidine
HOAc	acetic acid
Mecellosolve	2-methoxyethanol
MeCN	acetonitrile
Mecyclohexane	methylcyclohexane
MeEtCO	methyl ethyl ketone
$MeNH_2$	methylamine
MeOH	methyl alcohol
3-Mepentane	3-methylpentane
Me_2CO	acetone
Me_4NOH	tetramethylammonium hydroxide
NaOBu	sodium butoxide
NaOEt	sodium ethoxide
NaOMe	sodium methoxide

pet. ether	petroleum ether or ligroin
i-PrOH	isopropyl alcohol
i-Pr_2O	diisopropyl ether
$SiEt_3F$	triethylfluorosilane
$SiEt_2Me_2$	diethyldimethylsilane
$(SiMe_3)_2O$	hexamethyldisiloxane
$Si(OEt)_4$	tetraethoxysilane
tetralin	tetrahydronaphthalene
THF	tetrahydrofuran

JOURNALS ABSTRACTED

Journal	Code No.	Journal	Code No.
Acta Chem. Scand.	1	Gazz. chim. ital.	32
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Anal. Chim. Acta	4	Izvest. Acad. Nauk S.S.S.R.	70
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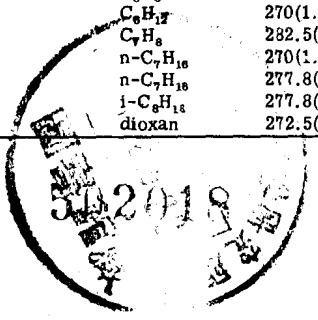
*This Journal is not covered in this volume of "Organic Electronic Spectral Data."

Compound	Solvent	λ_{max}(log ϵ)	Ref.
CBr_3NO_2			
Bromopicrin	pet. ether		39-2525-53
$CClF_3S$			
Methanesulfenyl chloride, trifluoro-	gas	214(2.37),333(1.40)	39-3219-53
CCl_3NO_2			
Chloropicrin	gas	277(1.26)	39-2525-53
	EtOH	276.5(1.79)	39-2525-53
	pet. ether	278.5(1.72)	39-2075-53
	pet. ether	278.5(1.72)	39-2525-53
CCl_4S			
Methanesulfenyl chloride, trichloro-	$CHCl_3$	324(1.08)	39-3219-53
	pet. ether	322(1.00)	39-3219-53
CF_3I			
Methane, trifluoroiodo-	gas	270(2.23)	29-0084-53b
CF_3NO			
Methane, trifluoronitroso-	gas	266(1.30),665(1.33), 683(1.36)	51-0579-53
	gas	266(1.30),566(0.4), 578(0.6),600(0.85), 608(0.95),624(1.08), 628(1.06),654(1.27), 665(1.33),683(1.36), 705(1.02),718(0.83)	39-0912-54
CF_3NO_2			
Methane, trifluoronitro-	gas	279(1.04)	51-0579-53
CHF_3S			
Methanethiol, trifluoro-	gas	218(1.66)	39-3219-53
CH_2N_2			
Methane, isodiazo-	Et_2O	250(1.4)	24-1887-54
CH_2N_4			
Tetrazole	EtOH		5-0200-55a
CH_2O			
Formaldehyde	H_2O, pH 6.70	286(1.13)	1-0867-55
CH_3BrHg			
Methylmercury bromide	EtOH	209-210(3.54)	39-1454-55
CH_3ClHg			
Methylmercury chloride	EtOH	206(3.17)	39-1454-55
CH_3HgI			
Methylmercury iodide	EtOH	206(3.89),230(3.60)	39-1454-55
CH_3NO_2			
Methane, nitro-	gas	275(0.95)	39-2525-53
	gas	280(0.9)	46-1006-54
	CCl_4	270(1.31)	46-1006-54
	CCl_4	277.8(1.31)	35-3959-55
	$CHCl_3$	276(1.29)	46-1006-54
	C_6H_6		46-1006-54
	C_6H_6	277.8(1.46)	35-3959-55
	C_6H_{12}	270(1.26)	46-1006-54
	C_7H_8	282.5(1.42)	35-3959-55
	n-C_7H_{16}	270(1.26)	46-1006-54
	n-C_7H_{16}	277.8(1.22)	35-3959-55
	i-C_8H_{18}	277.8(1.24)	35-3959-55
	dioxan	272.5(1.35)	35-3959-55



Compound	Solvent	λ_{max}(log ε)	Ref.
Methane, nitro- (cont.)	EtOH	274(1.23)	46-1006-54
	H_2O	269(1.19)	46-1006-54
	H_2O	271.0(1.17)	35-3959-55
	95% H_2SO_4	253(1.19)	46-1006-54
	MeOH	272.5(1.17)	35-3959-55
	pet. ether	278(1.30)	39-2525-53
CH_3NS_2			
Carbamic acid, dithio-, ammonium salt	EtOH	291(4.30),345(2.60)	40-1059-55
CH_3N_5			
Tetrazole, 5-amino-	EtOH	218(3.49)	44-1807-54
	H_2O	220s(2.3)	44-1003-53
$CH_4N_2O_2$			
Methylamine, N-nitro-	EtOH	230(4.14)	23-0923-55
CH_4N_2S			
Urea, thio-	EtOH	240(4.1),280s(1.8)	22-0086-53
	H_2O	248(4.8)	51-0242-53
	H_2O	260s(0.5)	20-0182-54
	pH 7.05	236(4.08)	39-2071-54
$CH_4N_4O_2$			
Guanidine, nitro-	EtOH	265(4.17)	3-1020-53
	H_2O	265(4.16)	3-1020-53
	MeOH	265(4.18)	3-1020-53
CH_5N			
Methylamine	gas	190.5f(3.51),215f (2.77)	38-0311-53
CH_5N_3S			
Semicarbazide, thio-	EtOH	240(4.1)	22-0086-53
$CH_5N_5O_2$			
Guanidine, 1-amino-3-nitro-	EtOH	267(4.16)	3-1020-53
	H_2O	267(4.12)	3-1020-53
	MeOH	267(4.16)	3-1020-53
CN_4O_8			
Methane, tetranitro-	pet. ether		39-2525-53
$C_2ClF_4NO_2$			
Ethane, 1-chloro-1,1,2,2-tetrafluoro-2-nitro-	gas	282.5(1.68)	39-2075-53
	gas	282.5(1.68)	39-2525-53
$C_2Cl_2F_3I$			
Ethane, 1,2-dichloro-1,1,2-trifluoro-2-iodo-	pet. ether	283(2.50)	39-4291-55
Ethane, 1,2-dichloro-1,2,2-trifluoro-1-iodo-	EtOH	261(2.47)	39-1592-53
C_2F_4			
Ethylene, tetrafluoro-	gas		29-0084-53b
$C_2F_4S_2$			
Formic acid, fluorodithio-, trifluoromethyl ester	gas	263(3.61),322.5(0.45), 324(0.42),327(0.41), 330(0.40),393(1.20)	39-3871-55
$C_2F_6N_2O$			
Azoxymethane, hexafluoro-	gas	214(3.69)	51-0579-53
	gas	211(3.90),303(1.24)	39-0919-54

Compound	Solvent	λ_{max}(log ϵ)	Ref.
$C_2F_6N_2O_2$			
Methylamine, 1,1,1-trifluoro-N-nitroso-N-(trifluoromethoxy)-	gas	374(1.30)	51-0579-53
	gas	374(1.3)	39-0691-54
C_2F_6S			
Sulfide, bis(trifluoromethyl)	gas	210(0.84)	39-3219-53
$C_2F_6S_2$			
Disulfide, bis(trifluoromethyl)	gas	235(2.46)	39-3219-53
	EtOH	237(2.56)	39-3219-53
	pet. ether	236(2.59)	39-3219-53
$C_2F_6S_3$			
Trisulfide, bis(trifluoromethyl)	gas	236(2.83)	39-3219-53
	EtOH	238(3.18)	39-3219-53
	pet. ether	240.5(3.19)	39-3219-53
$C_2F_6S_4$			
Tetrasulfide, bis(trifluoromethyl)	pet. ether	232-242s(3.40)	39-3219-53
C_2HF_4I			
Ethane, 1,1,2,2-tetrafluoro-1-iodo-	EtOH	255(2.41)	39-2622-53
	pet. ether	265(2.41)	39-2622-53
$C_2H_2BrF_2I$			
Ethane, 1-bromo-1,1-difluoro-2-iodo-	pet. ether	266(2.62)	39-0923-54
$C_2H_2ClF_2I$			
Ethane, 1-chloro-1,1-difluoro-2-iodo-	pet. ether	263(2.70)	39-0923-54
Ethane, 2-chloro-1,1-difluoro-1-iodo-	pet. ether	269(2.53)	39-0923-54
$C_2H_2Cl_2Hg$			
trans-(2-Chlorovinyl)mercury chloride	EtOH	212(3.80)	39-1454-55
$C_2H_2F_3I$			
Ethane, 1,1,1-trifluoro-2-iodo-	EtOH	258(2.41)	39-2622-53
	pet. ether	262(2.42)	39-2622-53
	pet. ether	262(2.42)	39-0923-54
$C_2H_3BrO_2$			
Acetyl hypobromite	CCl_4	330(2.3)	39-1105-54
$C_2H_3ClO_2$			
Acetyl hypochlorite	CCl_4	264(2.4)	39-1105-54
$C_2H_3F_2I$			
Ethane, 1,1-difluoro-1-iodo-	n-C_6H_{14}	267(2.53)	39-3005-55
$C_2H_3N_3$			
v-Triazole	EtOH	210(3.7)	35-0667-54
$C_2H_3N_3S$			
1,2,4-Thiadiazole, 5-amino-	H_2O	247(3.9)	24-0068-54
C_2H_4			
Ethylene	gas	170.3(4.23),173.0 (4.05),174.3(4.23), 177.8(3.05),180.2 (2.69),182.5(2.42), 185.3(2.00),188.2 (1.60)	3-0228-55

Compound	Solvent	λ_{max}(log ϵ)	Ref.
Ethylene (cont.)	gas	145(3.45),147.5(3.58), 150(3.67),152.5(3.71), 155(3.79),157.5(3.76), 160.0(3.89),162.5 (3.88),165.0(4.06), 170.4(4.15),173(4.01), 174.4(4.12),177.8 (2.95),180.2(2.63), 182.6(2.36),184.5 (2.02),188.1(1.57), 190.7(1.26),193.8 (1.00)	43-0756-53
	gas	145.0(2.96),150.0 (3.46),155.0(3.74), 157.5(3.89),160.0 (3.99),162.5(4.01), 165.0(4.00),170.4 (4.20),173.0(4.11), 174.4(4.18)	60-0605-55
C_2H_4ClNO			
Ethane, 1-chloro-1-nitroso-	pet. ether	597(0.7)	39-0912-54
$C_2H_4N_2O_2$			
Glyoxime	H_2O	329(4.22)	33-0205-53
$C_2H_4N_4O_2$			
Formamide, 1,1'-azobis-	EtOH	240(3.5)	22-0086-53
C_2H_4O			
Acetaldehyde	Et_2O	288(1.23)	1-1530-54
$C_2H_4O_2S$			
Acetic acid, thio-	0.01 N HCl	231(2.34)	35-0913-53
C_2H_5BrO			
Ethyl hypobromite	CCl_4	280(1.9),340(1.5)	39-1105-54
C_2H_5ClO			
Ethyl hypochlorite	CCl_4	260(1.5),310(1.2)	39-1105-54
C_2H_5NO			
Acetamide	H_2O	220s(1.8)	50-0955-53b
C_2H_5NOS			
Glycine, thio-	H_2O, pH 7	247(3.8)	24-1093-54
$C_2H_5NO_2$			
Ethane, nitro-	pet. ether	278.5(1.30)	39-2525-53
Glycine	0.01 N HCl		10-0501-54f
	H_2O		10-0181-53c
	H_2O		10-0184-55a
	H_2O, pH 1.0		10-0184-55a
$C_2H_5NO_3$			
Ethyl nitrate	pet. ether	255-260s(1.23)	39-2525-53
	pet. ether	260s(1.1)	39-0691-54
$C_2H_5N_5$			
1H-Tetrazole, 5-amino-1-methyl-	EtOH	222(3.48)	44-1807-54
1H-Tetrazole, 5-amino-2-methyl-	H_2O	241(3.37)	35-2894-54
1H-Tetrazole, 5-methylamino-	EtOH	225(3.49)	44-1807-54

Compound	Solvent	λ_{max}(log ϵ)	Ref.
$C_2H_6N_2$			
Acetamidine	pH 13.0	219(3.04)	39-2071-54
$C_2H_6N_2O$			
Glycinamide	H_2O, pH 5.8-6.0	210s(2.1)	10-0184-55a
	H_2O, pH 9.4-9.7	213s(2.2)	10-0184-55a
Dimethylamine, N-nitroso-	EtOH	231(3.85),346(2.00)	39-0691-54
	pet. ether	232(3.77),351(1.99), 361(2.10),374(2.02)	39-0691-54
Pseudourea, 2-methyl-	pH 7.50		39-2071-54
	pH 12.0		39-2071-54
$C_2H_6N_2O_2$			
Ethylamine, N-nitro-	EtOH	227-232(4.45)	23-0923-55
Methane, nitroso-, dimer, m. 97.5°	$CHCl_3$	275(4.00)	39-4190-55
	EtOH	269(4.00),anom.	39-4190-55
	H_2O	265(4.00),anom.	39-4190-55
Methane, nitroso-, dimer, m. 122°	CCl_4	291(4.06)	39-4190-55
	$CHCl_3$	286(4.05)	39-4190-55
	C_6H_{12}	218(3.14),288(3.99)	39-4190-55
	n-C_6H_{14}	218(3.12),288(3.97)	39-4190-55
	EtOH	282.5(4.01)	39-4190-55
	Et_2O	213(3.48),286(4.01)	39-4190-55
	H_2O	276(4.03)	39-4190-55
Methane, nitroso-, dimer, cis-	H_2O	265(4.00)	25-0538-55
Methane, nitroso-, dimer, trans-	H_2O	276(4.03)	25-0538-55
$C_2H_6N_2S$			
Pseudourea, 2-methyl-2-thio-	pH 7.05	220(4.58)	39-2071-54
	pH 12.0	238(3.74)	39-2071-54
$C_2H_6N_4S$			
Formamidine, 1,1'-thiodi-, dihydrobromide	MeOH	242(4.10)	39-4443-55
Urea, 1-amidino-2-thio-	1 N HCl	262-263(4.01)	39-4443-55
	HCl in MeOH	244(3.74),267(4.01)	39-4443-55
	MeOH	240(4.20),272(4.10)	39-4443-55
$C_2H_6OS_2$			
Methanesulfinic acid, thiol-, methyl ester	n-C_6H_{14}	260(3.31)	54-0129-54
	EtOH	248(3.32)	54-0129-54
$C_2H_6O_3S$			
Methanesulfonic acid, methyl ester	n-C_5H_{12}	295(0.4)	76-0572-53
	EtOH	278(1.10)	76-0572-53
	H_2O	278(0.5)	76-0572-53
Methyl sulfite	n-C_5H_{12}	295(0.2)	76-0572-53
	EtOH	280(0.90)	76-0572-53
C_2H_6S			
Ethanethiol	i-C_8H_{18}	232(2.2)	46-0270-54
$C_2H_6S_2$			
Methyl disulfide	n-C_6H_{14}	254(2.55)	54-0129-54
	i-C_8H_{18}	256(2.5)	46-0270-54
	EtOH	254(2.56)	54-0129-54

Compound	Solvent	λ_{max}(log ε)	Ref.
C_2H_7N			
Dimethylamine	gas	190.5f(3.51),222.2s (2.00)	38-0311-53
Ethylamine	gas	177(3.20),212.8f(2.90)	38-0311-53
C_3ClF_6I			
Propane, 1-chlorohexafluoro-1-iodo-	EtOH	262(2.50)	39-1592-53
$C_3F_6S_3$			
Carbonic acid, trithio-, bis(trifluoromethyl) ester	gas	246(3.58),248(3.58), 254(3.58),277(3.59), 293(3.62)	39-3871-55
	pet. ether	259(3.69),299(3.81), 496(1.20)	39-3871-55
C_3F_7I			
Propane, heptafluoro-1-iodo-	gas	271(2.29)	39-2622-53
	gas	271(2.29)	39-3761-53
	n-BuCl	267(2.38)	39-2622-53
	t-BuCl	265(2.36)	39-2622-53
	$CHCl_3$	269.5(2.40)	39-2622-53
	dioxan	253-260(2.44)	39-2622-53
	EtOAc	258-261(2.36)	39-2622-53
	50% EtOH	254(2.30)	39-2622-53
	EtOH	250.5(2.36)	39-1592-53
	EtOH	250.5(2.36)	39-2622-53
	Et_2O	257(2.40)	39-2622-53
	HOAc	261-263(2.35)	39-2622-53
	MeOH	251(2.37)	39-2622-53
	pet. ether	271(2.38)	39-2622-53
	pet. ether	271(2.38)	39-0923-54
C_3F_7NO			
1,2-Oxazetidine, 3,3,4,4-tetrafluoro-2-(trifluoromethyl)-	EtOH		39-1881-55
Propane, 1,1,1,2,2,3,3-heptafluoro-3-nitroso-	gas	684.0(1.28)	39-3755-53
	gas	684.0(1.27)	50-0173-53a
C_3HF_6I			
Propane, 1,1,1,2,3,3-hexafluoro-3-iodo-	EtOH	256(2.36)	39-2622-53
	pet. ether	268(2.41)	39-2622-53
$C_3H_2Cl_2N_4$			
s-Triazine, 2-amino-4,6-dichloro-	H_2O	224.1(4.18),262(3.29)	38-1181-53
$C_3H_2F_5I$			
Propane, 1,1,1,3,3-pentafluoro-3-iodo-	EtOH	263(2.45)	39-2622-53
	pet. ether	271(2.46)	39-2622-53
	pet. ether	271(2.46)	39-0923-54
Propane, 1,1,3,3,3-pentafluoro-1-iodo-	pet. ether	271(2.46)	39-3005-55
$C_3H_2S_3$			
1,2-Dithiole-3-thione	C_6H_{12}	230(3.87),254(3.92), 336(3.81),415(3.83)	39-0292-53
1,3-Dithiole-2-thione	C_6H_{12}	228.5(3.94),276(3.16), 362(4.17)	39-0292-53

Compound	Solvent	λ_{max}(log ϵ)	Ref.
$C_3H_3ClF_3I$			
Propane, 3-chloro-1,1,1-trifluoro-3-iodo-	EtOH	272(2.63)	39-1199-53
$C_3H_3F_4I$			
Propane, 1,1,1,3-tetrafluoro-3-iodo-	EtOH	260(2.53)	39-1199-53
C_3H_3NOS			
4-Thiazolin-2-one	EtOH	215(3.5),240(3.7)	33-2057-54
$C_3H_3N_3$			
s-Triazine	i-C_8H_{18}	272(3.0)	35-5646-54
$C_3H_3N_3O_2$			
Allantoxaidine	H_2O, pH 2.2	235(3.76)	35-1051-55
	H_2O, pH 11.6	252.5(3.89)	35-1051-55
s-Triazine-2,4-diol	pH 9	253(3.89)	33-2207-54
	pH 12	249(3.60)	33-2207-54
$C_3H_3N_5$			
Guanidine, 1,3-dicyano-, potassium salt	H_2O	238(4.32)	9-0209-54
$C_3H_4ClN_3$			
s-Triazine, 2,4-diamino-6-chloro-	cellosolve	256(3.51)	38-1181-53
$C_3H_4F_3I$			
Propane, 1,1,1-trifluoro-3-iodo-	EtOH	258(2.54)	39-2622-53
	pet. ether	261(2.57)	39-2622-53
$C_3H_4N_2$			
Imidazole	EtOH	207-208(3.70)	32-0769-55
	0.025M NaOH		62-0351-54a
	THF		5-0159-53b
Pyrazole	EtOH	210-211(3.53)	44-1681-55
	6N HCl	217(3.67)	44-1681-55
$C_3H_4N_2O_2$			
Hydantoin	acid EtOH		39-3010-55
	EtOH		39-3010-55
	0.01 N KOH in EtOH	224(3.79)	39-3010-55
$C_3H_4N_2O_4$			
Oxaluric acid	H_2O, pH 7.45		10-0405-55c
$C_3H_4N_2S$			
Thiazole, 2-amino-	EtOH	255(3.80)	39-2943-55
	EtOH	256(3.79)	17-0066-53
	2 N HCl	253.5(3.82)	49-0168-54
Thiazole, 2-amino-, hydrochloride	EtOH	255(3.90)	39-2943-55
$C_3H_4N_4$			
as-Triazine, 3-amino-	C_6H_{12}	220(3.98),310(3.44), 370(2.53),376(2.60), 387(2.70),395(2.72), 405(2.69),410(2.39)	38-0600-55
	EtOH	228(4.03),325(3.53), 371(2.88)	38-0600-55
	H_2O	226(4.18),322(3.48), 350s(3.12)	38-0600-55
	MeCN	226(4.17),315(3.46), 380(2.73)	38-0600-55
s-Triazine, 2-amino-	H_2O	220(4.21),261(3.29)	38-1181-53

Compound	Solvent	λ_{max}(log ε)	Ref.
$C_3H_4S_3$			
Carbonic acid, trithio-, ethylene ester	C_6H_{12}	293(4.10),311.5(4.17), 458(1.86)	39-0292-53
	pet. ether	292(4.03),311(4.10), 460(1.84)	39-3871-55
$C_3H_5N_3O$			
Glycocyamidine	pH 7.4	224(4.0)	37-0095-53e
Δ^2-1,2,4-Triazolin-5-one, 3-methyl-	n.s.g.		35-4076-55
Δ^3-1,2,4-Triazolin-5-one, 3-methyl-	n.s.g.	221(3.74)	35-4076-55
$C_3H_5N_3S$			
1,2,4-Thiadiazole, 5-amino-3-methyl-	H_2O	245(3.9)	24-0057-54
1,2,4-Thiadiazole, 5-methylamino-	H_2O	254(3.9)	24-0068-54
1,3,4-Thiadiazole, 2-amino-5-methyl-	2 N HCl	255.0(3.72)	49-1071-54
	pH 1.8	253.0(3.74)	49-1071-53
	pH 6.8	252.5(3.77)	49-1071-53
	pH 11.0	274.5(3.83)	49-1071-53
1,3,4-Thiadiazole, 5-amino-2-methyl-	H_2O	252(3.7)	24-0057-54
Δ^2-1,2,4-Thiadiazoline, 5-imino-4-methyl-	H_2O	240(3.8)	24-0068-54
$C_3H_5N_5$			
s-Triazine, 2,4-diamino-	EtOH	248-253(3.46)	35-1855-54
	EtOH	251(3.46)	33-2207-54
	H_2O	258(3.55)	38-1181-53
$C_3H_5N_5O$			
Ammeline	0.1 N HCl	230(2.2)	3-1270-54
$C_3H_5N_5O_4$			
2-Imidazoline, 2-nitramino-1-nitro-	H_2O	206(3.91),268(4.17)	23-0042-53
C_3H_6			
Propene	gas	173(4.2),188(3.2), 190(3.2)	3-0228-55
$C_3H_6ClNO_2$			
Propane, 1-chloro-1-nitro-	EtOH	280.5(1.48)	39-2525-53
	pet. ether	283.5(1.45)	39-2075-53
	pet. ether	283.5(1.45)	39-2525-53
Propane, 2-chloro-2-nitro-	EtOH	282.5(1.46)	39-2525-53
	pet. ether	283.5(1.45)	39-2075-53
	pet. ether	283.5(1.45)	39-2525-53
$C_3H_6N_2O_2$			
D-3-Isoxazolidinone, 4-amino-	H_2O	226(3.60)	35-2344-55
$C_3H_6N_2O_3$			
Hydantoic acid	acid EtOH		39-3010-55
	EtOH		39-3010-55
	0.01 N KOH in EtOH		39-3010-55
Propane, 2-nitro-2-nitroso-	C_6H_6	655(1.33)	39-0912-54
$C_3H_6N_2S$			
2-Imidazolidinethione	EtOH	235(4.18)	35-1162-54

Compound	Solvent	λ_{max}(log ϵ)	Ref.
$C_3H_6N_4$			
1,2,4-Triazole, 5-amino-3-methyl-	H_2O		24-0057-54
$C_3H_6N_4O_4$			
Imidazolidine, 1,3-dinitro-	EtOH	235(4.06)	35-3019-53
$C_3H_6N_6$			
Melamine	0.1 N HCl	235(1.9)	3-1270-54
	HCl, pH 1.01	236(3.9)	35-1855-54
	H_2O	208(4.8),232s(3.5), 294s(-0.4)	38-1181-53
	H_2O, pH 7.03	236(3.4)	35-1855-54
C_3H_6O			
Acetone	gas	280(1.05)	46-1006-54
	liq.	275(0.8)	43-0997-55
	CCl_4	280(1.30)	46-1006-54
	$CHCl_3$	281(1.24)	46-1006-54
	C_6H_6	280(1.24)	46-1006-54
	C_6H_{12}	280(1.17)	46-1006-54
	C_6H_{12}	285(1.1)	22-0865-53
	n-C_7H_{16}	279(1.11)	46-1006-54
	25% aq. dioxan	265.5(1.18)	44-0678-54
	50% aq. dioxan	270(1.17)	44-0678-54
	75% aq. dioxan	273(1.16)	44-0678-54
	dioxan	277(1.15)	44-0678-54
	EtOH	269(1.20)	46-1006-54
	EtOH	275(1.1)	22-0865-53
	H_2O	265(1.25)	46-1006-54
	H_2O	265(1.27)	44-0678-54
Propionaldehyde	H_2O	282(0.9)	49-0387-54
$C_3H_6OS_2$			
Xanthic acid, ethyl ester, potassium salt	EtOH	302(4.24),382(1.74)	40-1059-55
$C_3H_6O_3$			
Glyceraldehyde	H_2O	294(0.1)	49-0387-54
2-Propanone, 1,3-dihydroxy-	H_2O	270.0(1.35)	39-2240-53
	0.05 N NaOH	294.0(2.94)	39-2240-53
C_3H_6S			
Sulfide, methyl vinyl	EtOH	225(4.2),240s(4.0)	35-4747-53
Trimethylene sulfide	i-C_8H_{18}	218(2.8),275(1.5)	46-0270-54
$C_3H_6S_2$			
1,2-Dithiolane	EtOH	333.0(2.17),anom.	35-4348-54
1,3-Dithiolane	C_6H_{12}	207(3.13),247(2.56)	39-0292-53
$C_3H_6S_3$			
Carbonic acid, trithio-, dimethyl ester	C_6H_{12}	237.5(3.58),302(4.23), 430(1.45)	39-0292-53
	pet. ether	225(3.6),305(4.2), 420(1.5)	39-3871-55
C_3H_7I			
Propane, 1-iodo-	EtOH	254.5(2.69)	39-2622-53
	pet. ether	258(2.67)	39-2622-53