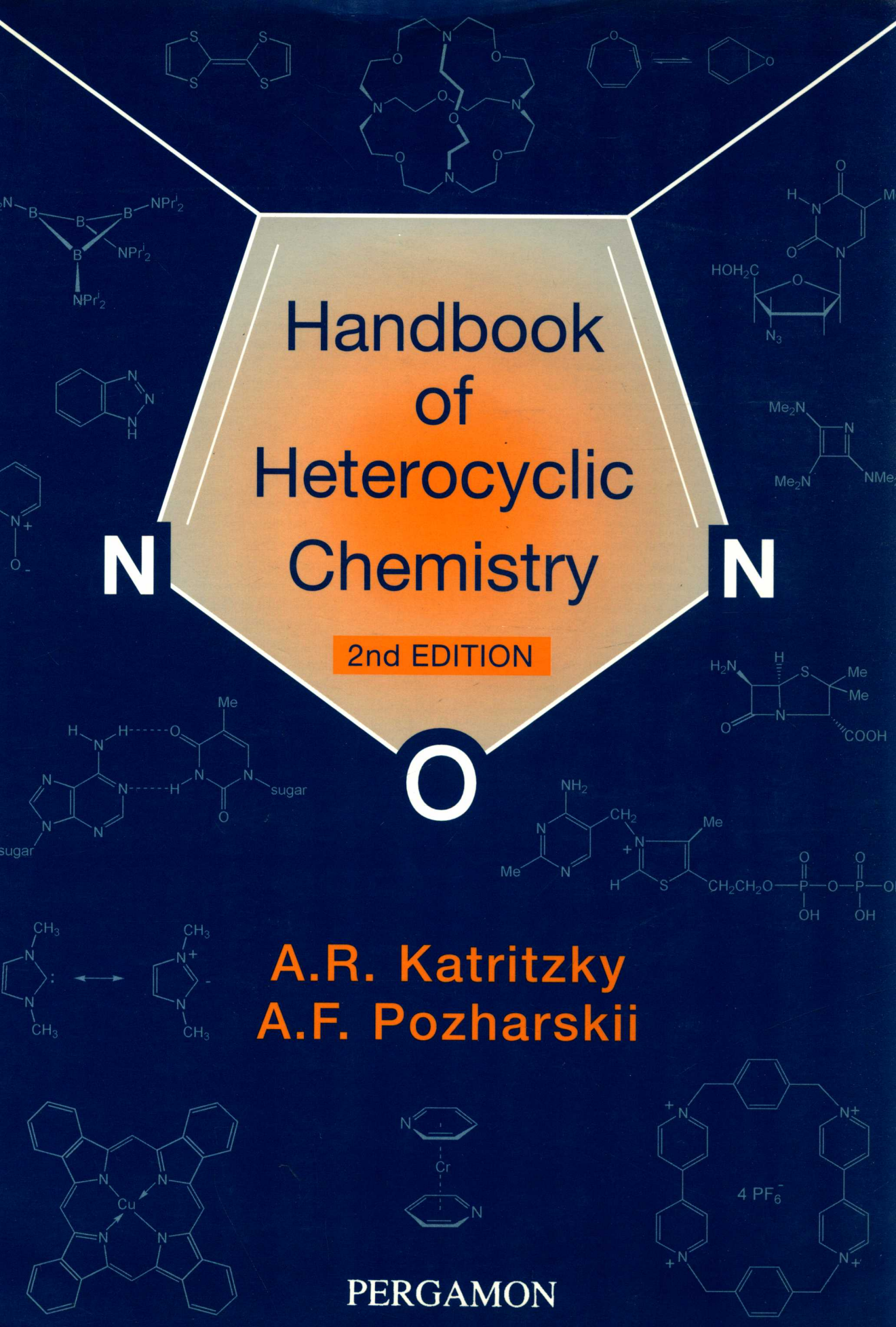

Handbook of Heterocyclic Chemistry

2nd EDITION

A.R. Katritzky
A.F. Pozharskii

PERGAMON

HANDBOOK OF HETEROCYCLIC CHEMISTRY

SECOND EDITION 2000

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2000

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AMSTERDAM – LAUSANNE – NEW YORK – OXFORD – SHANNON – SINGAPORE – TOKYO

ELSEVIER SCIENCE Ltd
The Boulevard, Langford Lane
Kidlington, Oxford OX5 1GB, UK

First edition 2000

Library of Congress Cataloging in Publication Data
A catalog record from the Library of Congress has been applied for.

British Library Cataloguing in Publication Data
A catalogue record from the British Library has been applied for.

ISBN: 0-08-042988-2 (HB)
ISBN: 0-08-042989-0 (PB)

♾ The paper used in this publication meets the requirements of ANSI/NISO Z39.48-1992 (Permanence of Paper).
Printed in The Netherlands.

JOURNAL CODES FOR REFERENCES

For explanation of the reference system, see p. 5

ABC	Agric . Biol. Chem.
ACH	Acta Chim. Acad. Sci. Hung.
ACR	Acc. Chem. Res.
AC(R)	Ann. Chim. (Rome)
ACS	Acta Chem. Scand.
ACS(A)	Acta Chem. Scand., Ser. A
ACS(B)	Acta Chem. Scand., Ser. B
AF	Arzneim.-Forsch.
AG	Angew. Chem.
AG(E)	Angew. Chem., Int. Ed. Engl.
AHC	Adv. Heterocycl. Chem.
AJC	Aust. J. Chem.
AK	Ark. Kemi
ANY	Ann. N.Y. Acad. Sci.
AP	Arch. Pharm. (Weinheim, Ger.)
APO	Adv. Phys. Org. Chem.
AX	Acta Crystallogr.
AX(B)	Acta Crystallogr., Part B
AX(C)	Acta Crystallogr., Part C
AQ(C)	An. Quim.
B	Biochemistry
BAP	Bull. Acad. Pol. Sci., Ser.
BAU	Bull. Acad. Sci. USSR, Div. Chem. Sci.
BBA	Biochim. Biophys. Acta
BBR	Biochem. Biophys. Res. Commun.
BCJ	Bull. Chem. Soc. Jpn.
BEP	Belg. Pat.
BJ	Biochem. J.
BJP	Br. J. Pharmacol.
BKS	Bull. Korean Chem. Soc.
BMS	Bioorg. Med. Chem. Lett.
BRP	Br. Pat.
BSP	Bull. Soc. Chim. Belg.
BSF	Bull. Soc. Chim. Fr.
BSF(2)	Bull. Soc. Chim. Fr., Part 2
C	Chimia
CA	Chem. Abstr.
CAR	Carbohydr. Res.
CB	Chem. Ber.
CBR	Chem. Br.
CC	J. Chem. Soc., Chem. Commun.
CCA	Croat. Chem. Acta
CCC	Collect. Czech. Chem. Commun.
CCR	Coord. Chem. Rev.
CHE	Chem. Heterocycl. Compd. (Engl. Transl.)
CHEC	Comp. Heterocycl. Chem., 1st edition
CHEC-II	Comp. Heterocycl. Chem., 2nd edition
CI(L)	Chem. Ind. (London)
CJC	Can. J. Chem.
CL	Chem. Lett.
COS	Comp. Org. Synth.
CPB	Chem. Pharm. Bull.
CPH	Chem. Phys.
CPL	Chem. Phys. Lett.
CR	C.R. Hebd. Seances Acad. Sci.
CR(B)	C.R. Hebd. Seances Acad. Sci., Ser. B.
CR(C)	C.R. Hebd. Seances Acad. Sci., Ser. C.
CRV	Chem. Rev.
CS	Chem. Scr.
CSC	Cryst. Struct. Commun.
CSR	Chem. Soc. Rev.
CZ	Chem.-Ztg.
DIS	Diss. Abstr.
DIS(B)	Diss. Abstr. Int. B
DOK	Dokl. Akad. Nauk SSSR
E	Experientia
EGP	Ger. (East) Pat.
EUP	Eur. Pat.
FES	Farmaco Ed. Sci.
FOR	Fortschr. Chem. Org. Naturst.
FRP	Fr. Pat.
G	Gazz. Chim. Ital.
GEP	Ger. Pat.
GEP(O)	Ger. Pat. Offen.
H	Heterocycles
HC	Chem. Heterocycl. Compd. [Weissberger-Taylor series]
HCA	Helv. Chim. Acta
HOU	Methoden Org. Chem. (Houben-Weyl)
IC	Inorg. Chem.
ICA	Inorg. Chem. Acta
IJC	Indian J. Chem.
IJC(B)	Indian J. Chem., Sect. B
IJS	Int. J. Sulfur Chem.
IJS(B)	Int. J. Sulfur Chem., Part B
IZV	Izv. Akad. Nauk SSSR, Ser. Khim.
JA	J. Am. Chem. Soc.
JAP	Jpn. Pat.
JAP(K)	Jpn. Kokai
JBC	J. Biol. Chem.

Continuation of
JOURNAL CODES FOR REFERENCES

JC	J. Chromatogr.
JCC	J. Coord. Chem.
JCI	I. Chem. Inf. Comput. Sci.
JCO	J. Comput. Chem.
JCP	J. Chem. Phys.
JCR(M)	J. Chem. Res. (M)
JCR(S)	J. Chem. Res. (S)
JCS	J. Chem. Soc.
JCS(C)	J. Chem. Soc. (C)
JCS(D)	J. Chem. Soc., Dalton Trans.
JCS(F1)	J. Chem. Soc., Faraday Trans. 1
JCS(P1)	J. Chem. Soc., Perkin Trans. 1
JCS(P2)	J. Chem. Soc., Perkin Trans. 2
JGU	J. Gen. Chem. USSR (Engl. Transl.)
JHC	J. Heterocycl. Chem.
JIC	J. Indian Chem. Soc.
JMC	J. Med. Chem.
JMR	J. Magn. Reson.
JOC	J. Org. Chem.
JOM	J. Organomet. Chem.
JOU	J. Org. Chem. USSR (Engl. Transl.)
JPC	J. Phys. Chem.
JPO	J. Phys. Org. Chem.
JPR	J. Prakt. Chem.
JPS	J. Pharm. Sci.
JSP	J. Mol. Spectrosc.
JST	J. Mol. Struct.
K	Kristallografiya
KFZ	Khim.-Farm. Zh.
KGS	Khim. Geterotsikl. Soedin.
LA	Liebigs Ann. Chem.
M	Monatsh. Chem.
MC	Mendeleev Communications
MI	Miscellaneous [book or journal]
MIP	Miscellaneous Pat.
MRC	Magn. Reson. Chem.
MS	Q. N. Porter and J. Baldas, 'Mass Spectrometry of Heterocyclic Compounds', Wiley, New York, 1971
N	Naturwissenschaften
NAT	Nature
NEP	Neth. Pat.
NJC	Nouv. J. Chim.
NKK	Nippon Kagaku Kaishi
NMR	T. J. Batterham, 'NMR Spectra of Simple Heterocycles', Wiley, New York, 1973
OM	Organometallics
OMR	Org. Magn. Reson.
OMS	Org. Mass Spectrom.
OPP	Org. Prep. Proced. Int.
OR	Org. React.
OS	Org. Synth.
OSC	Org. Synth., Coll. Vol.
P	Phytochemistry
PAC	Pure Appl. Chem.
PC	Personal Communication
PH	'Photochemistry of Heterocyclic Compounds', ed. O. Buchardt, Wiley, New York, 1976
PHA	Pharmazie
PHC	Prog. Heterocycl. Chem.
PIA	Proc. Indian Acad. Sci.
PIA(A)	Proc. Indian Acad. Sci., Sect. A
PJC	Pol. J. Chem.
PMH	Phys. Methods Heterocycl. Chem.
PNA	Proc. Natl. Acad. Sci. USA
PS	Phosphorus Sulfur
QR	Q. Rev., Chem. Soc.
RCR	Russ. Chem. Rev. (Engl. Transl.)
RRC	Rev. Roum. Chim.
RTC	Recl. Trav. Chim. Pays-Bas
S	Synthesis
SA	Spectorchim. Acta
SA(A)	Spectorchim. Acta, Part A
SAP	S. Afr. Pat.
SC	Synth. Commun.
SH	W. L. F. Armarego, 'Stereochemistry of Heterocyclic Compounds', Wiley, New York, 1977, parts 1 and 2
SL	Synlett
SR	Sulfur Reports
SST	Org. Compd. Sulphur, Selenium, Tellurium [R. Soc. Chem. series]
SUL	Sulfur Letters
T	Tetrahedron
TA	Tetrahedron: Asymmetry
TAL	Talanta
TCA	Theor. Chim. Acta
TH	Thesis IJC(B)
TL	Tetradron Lett.
UKZ	Ukr. Khim. Zh. (Russ. Ed.)
UP	Unpublished Results
URP	USSR Pat.
USP	U.S. Pat.
YZ	Yakugaku Zasshi
ZAAC	Z. Anorg. Allg. Chem.
ZC	Z. Chem.
ZN	Z. Naturforsch.
ZN(A)	Z. Naturforsch., Teil A
ZN(B)	Z. Naturforsch., Teil B
ZOB	Zh. Obshch. Khim.
ZOR	Zh. Org. Khim.
ZPC	Hoppe-Seyler's Z. Physiol. Chem.
ZPH	Zh. Phys. Khim.
ZPK	Zh. Prikl. Khim.

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SECOND EDITION 2000

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DEROME: Modern NMR Techniques for Chemistry Research
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BARTON & OLLIS: Comprehensive Organic Chemistry
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Foreword to Second Edition of "Handbook of Heterocyclic Chemistry"

In the fourteen years since the first edition of this Handbook (Handbook-I) was published much has happened. In particular, "Comprehensive Heterocyclic Chemistry-II" (CHEC-II) has been published, updating "Comprehensive Heterocyclic Chemistry" (CHEC), on which the first edition of the Handbook was based. In view of the very large volume of heterocyclic chemistry which has appeared, it was essential to thoroughly revise and update the Handbook for its second edition.

In this endeavor the original author of Handbook-I has been joined by Alexander Pozharskii of the University of Rostov, Russia. We have adopted for Handbook-II (for the most part) the arrangement and classification of Handbook-I. However, a large amount of new material has been added, most of which has been taken from the 10 volumes of CHEC-II. In many instances we have utilized pieces of actual text and structural schemes directly from CHEC-II. Because of the close relationship to CHEC and to CHEC-II, the Foreword, Introduction to CHEC-II and Short Contents of both CHEC and CHEC-II are reprinted as part of the "Part I: Preliminaries" of Handbook-II. Just as for Handbook-I, the organization of Handbook-II follows that of the CHEC and CHEC-II rather closely except in the case of ring synthesis, and Chapter 1.3 of the "Handbook" describes these divergencies.

The authors of the Handbook-II have many acknowledgments to make for help. We particularly thank Charles Rees, Eric Scriven and John Zoltewicz who have read the work in its entirety. We are most grateful for the technical assistance from Ms. Hong Wu, Dr. Olga V. Denisko, Dr. O. V. Dyablo, Dr. A. V. Gulevskaya, Mr. S. Kakasyev and Ms. V. N. Stepanova and to Dr. Linde Katritzky for her constant support.

The updating required to produce Handbook-II has not been an easy one, and we are quite aware that there are numerous deficiencies. Many hard decisions had to be made to keep the overall length within reasonable bounds. The choice of what to put in and what to leave out was often difficult, and we have probably overlooked many important contributions that should have been included. Despite our best efforts, undoubtedly errors remain and we, the authors, take full responsibility for them.

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Outline Contents

Detailed Contents