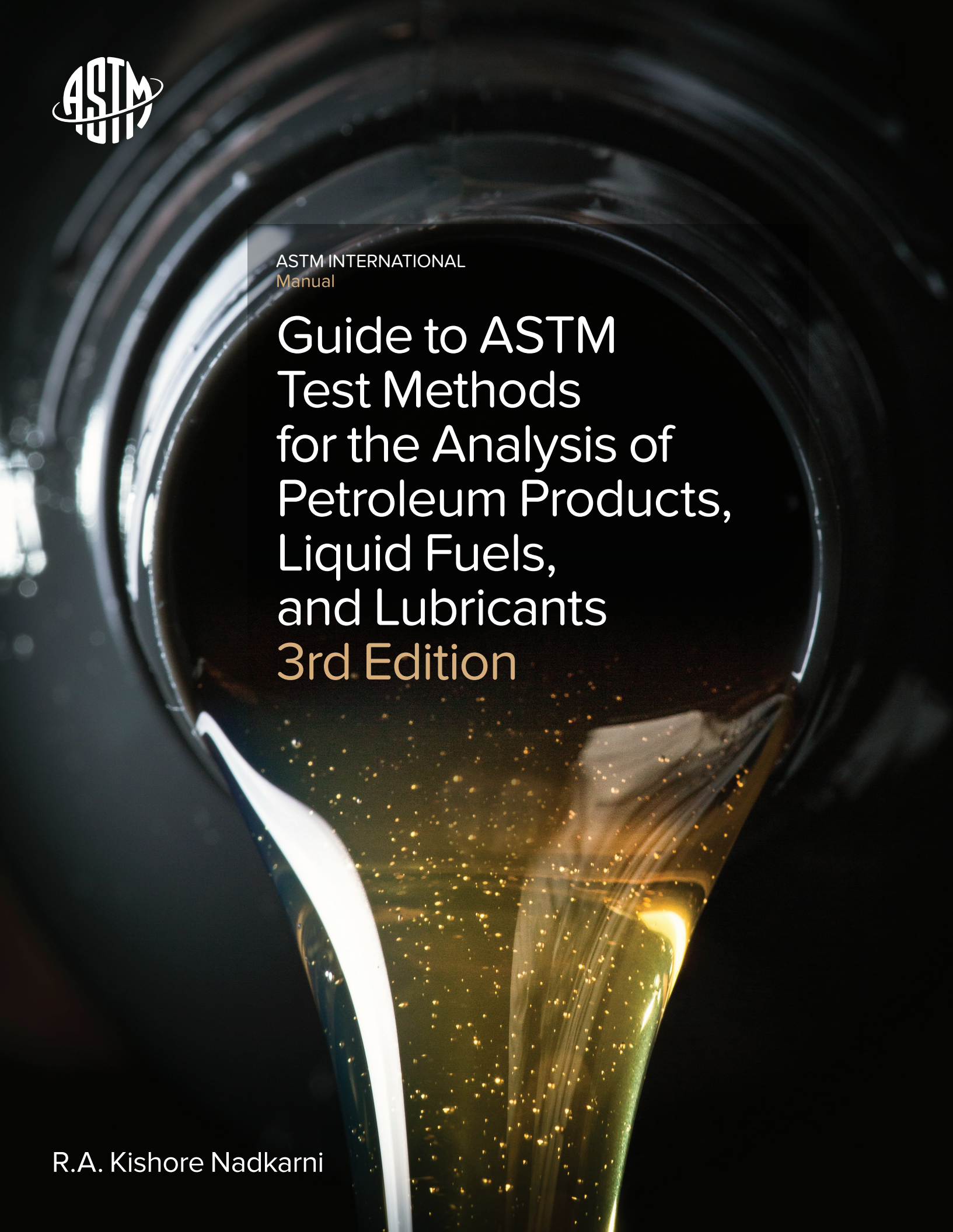

ASTM INTERNATIONAL
Manual

Guide to ASTM Test Methods for the Analysis of Petroleum Products, Liquid Fuels, and Lubricants
3rd Edition

R.A. Kishore Nadkarni

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How to Use This Manual

Table 1 lists the specifications given for petroleum products, liquid fuels, and lubricants. As can be seen, a variety of product specifications use multiple properties to characterize the products.

Table 2 lists the test methods with their equivalent IP, ISO, DIN, JIS, and AFNOR designations. The top of each page listing the test summary also references these equivalent standards. If you are considering using any standard that has equivalent standards, you should determine the full scope of each standard and identify any differences between. Although these standards are listed as equivalent, in many cases, they will not be exactly the same.

Table 3 lists the ASTM test methods alphanumerically by ASTM designation. If you know the ASTM designation, this is the easiest way to find what you need. The top of each page listing the test summary also references these equivalent standards.

Foreword

THE PUBLICATION, *Guide to ASTM Test Methods for the Analysis of Petroleum Products, Liquid Fuels, and Lubricants: 3rd Edition*, was sponsored by ASTM Committee D02 on Petroleum Products and Lubricants and edited by R. A. Kishore Nadkarni, East Brunswick, NJ. This is Manual 44 of ASTM's manual series.

This manual originally published in 2000 has proved to be a useful reference book for technologists and others in the Petroleum Products and Lubricants industry. This enlarged third edition is updated to include ASTM D02 Committee test methods published through 2018. Since first being published, this edition has grown to include more than 300 D02 standards.

Edition	Year	Standards	Properties
1	2000	363	160
2	2007	403	243
3	2018	524	311

The author and the publisher hope that this third edition will prove to be as useful as the first two to the oil industry researchers, analysts, marketers, and regulators.

Dedication

In memory of my beloved wife Nancy Joanne Nadkarni.

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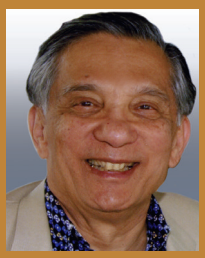

Dr. R.A. Kishore Nadkarni received his Ph.D. in analytical chemistry at the University of Bombay. Since then he has worked as a research associate at the University of Kentucky, manager of the Materials Science Center Analytical Facility at Cornell University, and analytical leader in the ExxonMobil Company. In his last position he was responsible for technical quality management of the Paramins Division's global plant laboratories.

He has authored more than 140 technical publications, including 21 new ASTM standards in the area of analytical chemistry and quality management. He is a member of the American Chemical Society and ASTM International. He is very active in ASTM and ISO in the petroleum products and lubricant field, holding the position of immediate past chairman of ISO/TC28, chairman of ASTM's D02.03 on Elemental Analysis, vice-chairman of D02.92 on Proficiency Testing Programs, D02.94 Coordinating Subcommittee on Quality Assurance and Statistics.

Dr. Nadkarni has received the Award of Appreciation (1991) and Awards for Excellence (1998, 1999, and 2013) from ASTM's D02 Committee for his contribution to the oil industry, the Award of Merit (2005), Scroll of Achievement award (2005), the George V. Dyroff Award of Honorary Committee D02 membership (2006), the Sydney D. Andrews D02 Scroll of Achievement Award (2009), D02 Eagle Award (2016), and the Charles B. Dudley ASTM Award (2017).

He is the author or editor of STP 1109, Modern Instrumental Methods of Elemental Analysis of Petroleum Products and Lubricants (1991); STP 1468, Elemental Analysis of Fuels and Lubricants (2005); Manual 44, Guide to ASTM Test Methods for the Analysis of Petroleum Products and Lubricants-2nd (2007); Manual 61, Guide to ASTM Test Methods for the Analysis of Coal and Coke (2008); Monograph 9, Spectroscopic Analysis of Petroleum Products and Lubricants (2011); Monograph 10, Elemental Analysis of Fossil Fuels and Related Materials (2014); Monograph 11, Sulfur: Chemistry Analysis of Fossil Fuel Products (2014) and this present publication.

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