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First edition 2003

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British Library Cataloguing in Publication Data

A catalogue record for this book is available from the British Library

Library of Congress Control Number

A catalogue record for this book is available from the Library of Congress

ISBN: 978-0-08-095975-7(Set)

Cover photo: Map of the count rate ratio of Mg/(Mg+Fe) in a section of the Semarkona LL3.0 chondrite, constructed from magnesium and iron K α x-ray maps provided by Denton S. Ebel of the American Museum of Natural History. The field of view is 19.2 by 7.8 mm. Type I chondrules are magnesium rich and almost free of iron, and appear red. Type II chondrules are composed of magnesium and iron silicates and appear in green to orange colors. A fine-grained iron-rich matrix between chondrules is light blue in color, and metal and iron sulfides appear purple. Black denotes cracks and voids.

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Printed and bound in Italy

13 14 15 16 17 18 10 9 8 7 6 5 4 3 2 1



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