

CONTENTS

PREFACE	7
INTRODUCTION	13
I. COLLECTING, HANDLING, AND HOUSING GEMSTONES	17
2. REFRACTIVE INDEX AND ITS MEASUREMENT	27
3. DOUBLE REFRACTION AND DISPERSION	55
4. COLOUR, COLOUR FILTERS, AND THE DICHROSCOPE	65
5. THE SPECIFIC GRAVITY OF GEMSTONES AND HOW TO MEASURE IT	72
6. DETECTION OF SYNTHETIC AND IMITATION STONES	88
7. THE USE OF THE MICROSCOPE	143
8. THE USE OF THE SPECTROSCOPE	143
9. THE IDENTIFICATION OF DIAMOND	177
10. THE IDENTIFICATION OF RUBY	195
11. THE IDENTIFICATION OF SAPPHIRE	206
12. IDENTIFICATION OF EMERALD	212
13. AQUAMARINE AND ALEXANDRITE	223
14. ZIRCON	230
15. TOPAZ AND OTHER YELLOW STONES	239
16. PINK, MAUVE, OR LILAC STONES	246
17. BROWN AND ORANGE STONES	250
18. QUARTZ, CHALCEDONY, AND OPAL	256
19. THE GARNET FAMILY	267
20. TOURMALINE, PERIDOT AND SPINEL	278
21. JADE AND JADE-LIKE MINERALS	286
22. TURQUOISE AND LAPIS LAZULI	295
23. CAT'S-EYES, STAR-STONES, AND OTHERS	301
24. AMBER, TORTOISESHELL, CORAL, AND JET	309
25. PEARLS: REAL, CULTURED, AND IMITATION	315
26. FLUORESCENCE AS AN AID TO IDENTIFICATION	337
APPENDIX	349
RECOMMENDED SUPPLIERS	368
INDEX	369