

## CONTENTS

	Page
1. Introduction	1
2. Specimen Mounting	4
Appendix A: Method of preparing a mount of conducting plastic with normal plastic At the working face	20
Appendix B: Method of manufacturing a mould for epoxy resins from a polyvinyl Chloride dipping compound	20
Appendix C: Method of manufacturing a mould for epoxy resins from a cold-cure Silicone rubber	21
3. Machining and Abrasion: Principles	23
4. Machining and Abrasion: Practice	65
Appendix A: An abrasive lap for fine abrasion	82
Appendix B: Diamond-plastic laps for abrading hard materials	83
5. Mechanical Polishing: Principles	86
6. Mechanical Polishing: Practice	112
Appendix A: Livigation of alumina polishing abrasive	151
Appendix B: Method of preparing a diamond-impregnated paste for metallographic Polishing	152
Appendix C: Method of preparing a water-miscible vehicle for use with diamond Abrasives	153
Appendix D: Factors controlling the resonance of an electromagnetic vibratory Polisher	153
7. Practical Preparation Procedures	157
Appendix A: Notes on the preparation of specimens of common metals and alloys	188
Appendix B: Electroplating methods for edge protection	194
Appendix C: Brashear process for silvering prior to electroplating	195
8. Comparison of Mechanical and Electrolytic Methods of Polishing	198
Glossary of Terms	218
Index	221