

CONTENTS

FOREWORD	ix
PREFACE	xi
1 INTRODUCTION	1
2 RAW MATERIALS	6
3 MANUFACTURE I – GENERAL; BODY PREPARATION	17
4 MANUFACTURE II – PLASTIC SHAPING METHODS	32
5 MANUFACTURE III – NON-PLASTIC SHAPING METHODS	41
6 MANUFACTURE IV – GLAZING, FIRING, INSPECTION	53
7 PORCELAIN I – COMPOSITIONS, PROCESSING, PROPERTIES	59
8 PORCELAIN II – PRODUCTS, MODIFIED COMPOSITIONS	79
9 HIGH TEMPERATURE CERAMICS I – PROPERTIES, FABRICATION METHODS	85
10 HIGH TEMPERATURE CERAMICS II – OXIDES	101
11 HIGH TEMPERATURE CERAMICS III – NON-OXIDES	113
12 HIGH TEMPERATURE CERAMICS IV – VARIOUS PRODUCTS AND APPLICATIONS	123
13 HIGH FREQUENCY CERAMICS I – STEATITE	136
14 HIGH FREQUENCY CERAMICS II – HIGH PERMITTIVITY DIELECTRICS	144
15 HIGH FREQUENCY CERAMICS III – MAGNETIC CERAMICS (FERRITES)	158
16 METALLISED CERAMICS	168
APPENDIX 1. Electrical and magnetic definitions	171
APPENDIX 2. Electrical and magnetic measurements	175
APPENDIX 3. Properties of high-temperature ceramics	181
APPENDIX 4. Properties of high-frequency ceramics	182
INDEX	183