

CONTENTS

FOREWORD	1
INTRODUCTION	3
Bibliography	6
Chapter I. GENERAL	8
HEAT RESISTANCE OF POLYMERS	8
THERMAL RESISTANCE OF HIGH POLYMERS	34
MAIN TYPES OF THERMORESISTANT POLYMERS	53
CHEMICAL CLASSIFICATION OF HIGH POLYMERS	58
Bibliography	63
Chapter II. CARBON-CHAIN POLYMERS	69
POLYHYDROCARBONS	69
POLYBICYCLIC CHAIN POLYMERS	82
PHENOL-FORMALDEHYDE POLYMERS	97
FURFURAL-BASED POLYMERS	109
Bibliography	110
Chapter III. HETEROCYCLIC CHAIN POLYMERS	119
POLYETHERS	119
POLYETHERS	134
POLYANHYDRIDES	177
SULFUR-CONTAINING POLYMERS	179
POLYAMIDES	183
POLYHYDRAZIDES	191
POLYHYDRAZONES	199
OTHER NITROGEN-CONTAINING POLYMERS	202
Bibliography	209
Chapter IV. HETEROCYCLIC CHAIN POLYMERS	221
POLYIMIDES	221
POLYBENZOXAZOLES	239
POLYTHIAZOLES	250
POLYBENZTHIAZOLES	256
POLYBENZIMIDAZOLES	259
POLYBENZIMIDAZOPYRROLONES (PYRROLONES)	279
POLYPYRAZOLES	283
POLYTRIAZOLES	291
POLYOXADIAZOLES	294
POLYPYRIDINES	310
POLYPYRIMIDINES	315

POLYPYRAZINES	319
POLYTRIAZINES	323
POLYSTETRAZINES	326
Bibliography	326
Chapter V. ELEMENT-ORGANIC AND INORGANIC POLYMERS	336
ELEMENT-ORGANIC POLYMERS	336
INORGANIC POLYMERS	379
Bibliography	384
APPENDIX	392
AUTHOR INDEX	398
SUBJECT INDEX	417