

ANALISIS OPTIMALISASI METODE CURING TERHADAP PERILAKU MEKANIK MORTAR GEOPOLIM BERBASIS FLY ASH DENGAN VARIASI AKTIVATOR DAN MOLARITAS NaOH

ORIGINALITY REPORT

13%

SIMILARITY INDEX

13%

INTERNET SOURCES

8%

PUBLICATIONS

4%

STUDENT PAPERS

PRIMARY SOURCES

1

repository.its.ac.id

Internet Source

2

Submitted to Universitas 17 Agustus 1945 Surabaya

Student Paper

3

repository.unissula.ac.id

Internet Source

4

dspace.uui.ac.id

Internet Source

5

repository.untag-sby.ac.id

Internet Source

6

adoc.pub

Internet Source

7

research-report.umm.ac.id

Internet Source

8

teras.unimal.ac.id

Internet Source

9

publikasiilmiah.ums.ac.id

Internet Source

10

ejournal.undip.ac.id

Internet Source

11

jurnal.univpgri-palembang.ac.id

Internet Source

12

repository.umsu.ac.id

Internet Source

13

Submitted to Universitas Merdeka Malang

Student Paper

14

journal.untar.ac.id

Internet Source

15

e-jurnal.pnl.ac.id

Internet Source

16

jurnalteknikpasifik.id

17

text-id.123dok.com

Internet Source

18

Submitted to Sriwijaya University

Student Paper

19

publikasiilmiah.ums.ac.id

Internet Source

20

jurnal.univpgri-palembang.ac.id

Internet Source

21

jurnalmahasiswa.unesa.ac.id

Internet Source

22

eprints.uny.ac.id

Internet Source

23

adoc.pub

Internet Source

24

ejurnal.itenas.ac.id

Internet Source

25

repository.um-palembang.ac.id

Internet Source

26

repository.unsulbar.ac.id

Internet Source

27

www.researchgate.net

Internet Source

28

repository.binadarma.ac.id

Internet Source

29

etd.umy.ac.id

Internet Source

30

docplayer.info

Internet Source

31

e-journals.unmul.ac.id

Internet Source

32

journal.untar.ac.id

Internet Source

33

repository.unpad.ac.id

Internet Source

34

Submitted to Universitas Muhammadiyah Palembang

Student Paper

35

digilib.uinsby.ac.idInternet Source

36

[Yusup Hendronursito, Muhammad Amin, Kusno Isnugroho, David Candra Birawidha "SAND CASTING MANUFACTURER WITH MATERIAL ADDITIVE TO PERMEABILITY AND GREEN COMPRESSIVE STRENGTH CHARACTERISTIC", MECHANICAL, 2020](#)Publication

37

e-jurnal.pnl.ac.idInternet Source

38

eprints.upj.ac.idInternet Source

39

repository.ub.ac.idInternet Source

40

jurnalteknikpasifik.idInternet Source

41

repositori.usu.ac.idInternet Source

42

123dok.comInternet Source

43

repository.unja.ac.idInternet Source

44

digilib.uns.ac.idInternet Source

45

[Submitted to Universitas Bung Hatta](#)Student Paper

46

eprints.itn.ac.idInternet Source

47

jurnal.poliupg.ac.idInternet Source

48

[Submitted to UPN Veteran Jawa Timur](#)Student Paper

49

ejournal.ust.ac.idInternet Source

50

[Submitted to Universitas Sebelas Maret](#)Student Paper

51

repository.pnj.ac.idInternet Source

52

repository.unilak.ac.idInternet Source

53

ejurnal.untag-smd.ac.id

Internet Source

54

es.scribd.com

Internet Source

55

repository.unika.ac.id

Internet Source

56

Mochamad Solikin. "Analisis Pemakaian Kombinasi Fly Ash Tipe F Dan Slag 1:1 Pada Beton Geopolymer Dengan Na_2SiO_3 Dan NaOH Sebagai Alkali Aktivator: Sebuah Kajian Literatur", *Dinamika Teknik Sipil: Majalah Ilmiah Teknik Sipil*, 2021

Publication

57

patents.google.com

Internet Source

58

repository.unsri.ac.id

Internet Source

59

slideplayer.info

Internet Source

60

Rofikatul Karimah, Khairul Abadi, Mochammad Ridwan, Ikhlil Lutfiyah Kamila. "Tinjauan Kuat Tekan Dan Absorpsi Mortar Yang Mengandung Air Garam", *Media Ilmiah Teknik Sipil*, 2023

Publication

61

digilib.unila.ac.id

Internet Source

62

id.scribd.com

Internet Source

63

repo.ukitoraja.ac.id

Internet Source

64

Fitri Nur'Aini, Arie Taveriyanto. "Analisis Ketahanan Geopolymer Foam Concrete terhadap Lingkungan Asam, Netral dan Basa dengan Variasi Foam Agent", *RIGGS: Journal of Artificial Intelligence and Digital Business*, 2026

Publication

65

digilibadmin.unismuh.ac.id

Internet Source

66

jurnal.abulyatama.ac.id

Internet Source

67

repository.upp.ac.id

Internet Source

68

[Submitted to Universitas Islam Riau](#)

Student Paper

repository.unifa.ac.id

69

Internet Source

70

Submitted to Forum Perpustakaan Perguruan Tinggi Indonesia Jawa Tengah

Student Paper

71

Submitted to Universitas Islam Lamongan

Student Paper

72

Submitted to Universitas Katolik Indonesia Atma Jaya

Student Paper

73

Submitted to Program Pascasarjana Universitas Negeri Yogyakarta

Student Paper

74

journal.unilak.ac.id

Internet Source

75

repository.itpln.ac.id

Internet Source

76

repository.unbari.ac.id

Internet Source

77

Submitted to Fakultas Teknik

Student Paper

78

fddocuments.net

Internet Source

79

politeknikpu.ac.id

Internet Source

80

www.scribd.com

Internet Source

81

Submitted to Universitas Bengkulu

Student Paper

82

patents.justia.com

Internet Source

83

journal.isas.or.id

Internet Source

84

repositori.unibos.ac.id

Internet Source

85

edepositireland.ie

Internet Source

86

ppid.kepriprov.go.id

Internet Source

87

Submitted to Perpustakaan

Student Paper

88 Taufik Hidayattulloh, Erma Desimaliana. "PENGARUH OVEN CURING TERHADAP KUA TEKAN MORTAR GEOPOLIMER DENGAN SUBSTITUSI LIMBAH KARBIT", JUMATISI: Jurr Mahasiswa Teknik Sipil, 2025
Publication

89 Submitted to Universitas Islam Bandung
Student Paper

90 Submitted to Universitas Mulawarman
Student Paper

91 Submitted to Universitas Muhammadiyah Purwokerto
Student Paper

92 ismetek.itbu.ac.id
Internet Source

93 jurnal.itpln.ac.id
Internet Source

94 pdfs.semanticscholar.org
Internet Source

95 repository.mediapenerbitindonesia.com
Internet Source

96 repository.unej.ac.id
Internet Source

97 sipil.ft.uns.ac.id
Internet Source

98 Submitted to Universitas Dian Nuswantoro
Student Paper

99 Submitted to Walters State Community College
Student Paper

100 ejournal.unmus.ac.id
Internet Source

101 repository.uhn.ac.id
Internet Source

102 Submitted to Politeknik Energi dan Pertambangan Bandung
Student Paper

103 Submitted to STT PLN
Student Paper

104 repository.umpwr.ac.id:8080
Internet Source

105 www.detik.com
Internet Source

106 www.semanticscholar.org
Internet Source

107 zh.scribd.com
Internet Source

108 Submitted to LL Dikti IX Turnitin Consortium
Student Paper

109 Mochamad Ridwan, Agus Mahmudi, Aditya Maulana Malik. "Studi Pengaruh Penggunaan Air Payau Dari Pesisir Kabupaten Gresik Dan Lamongan Pada Campura Beton Terhadap Kuat Tekan", INTER TECH, 2025
Publication

110 ejournal.unib.ac.id
Internet Source

111 erepository.uwks.ac.id
Internet Source

112 jurnal.utu.ac.id
Internet Source

113 scholarhub.unimas.my
Internet Source

114 Submitted to Hankuk University of Foreign Studies
Student Paper

115 Ratih Kusuma Wardani. "Modifikasi Abu Bawah Batubara (Bottom Ash) Menggunakan Larutan Basa Kuat Natrium Hidroksida", Journal of Pharmacy and Science, 2018
Publication

116 Submitted to UPN Veteran Yogyakarta
Student Paper

117 Submitted to Universitas Islam Indonesia
Student Paper

118 Submitted to Universitas Negeri Jakarta
Student Paper

119 jurnal.upnyk.ac.id
Internet Source

120 repositori.uma.ac.id
Internet Source

121 Submitted to The Scientific & Technological Research Council of Turkey (TUBITAK)
Student Paper

122 Submitted to Universitas Jember
Student Paper

123 ejournal.unkhair.ac.id

124 fiskal.kemenkeu.go.id
Internet Source

125 ojs.ummetro.ac.id
Internet Source

126 www.neliti.com
Internet Source

127 Submitted to FAKULTAS TEKNIK
Student Paper

128 Submitted to Sultan Agung Islamic University
Student Paper

129 Submitted to Universitas Pamulang
Student Paper

130 Submitted to Universitas Respati Indonesia
Student Paper

131 digilib.ulm.ac.id
Internet Source

132 ejournal.kemenperin.go.id
Internet Source

133 ejournal.lppmsttpagaralam.ac.id
Internet Source

134 ejournal.unitomo.ac.id
Internet Source

135 journal.uir.ac.id
Internet Source

136 jurnalsyntaxadmiration.com
Internet Source

137 repo.stikesperintis.ac.id
Internet Source

138 repository.umy.ac.id
Internet Source

139 Submitted to De La Salle University - Manila
Student Paper

140 Submitted to Fakultas Ekonomi Universitas Indonesia
Student Paper

141 Rikayasa Rikayasa, Hermansyah Hermansyah. "Pembuatan Batako Menggunakan Plastik PET (Polyethylene Terephthalate) Sebagai Bahan Pengganti Pasir untuk

142

Submitted to Teknik Sipil

Student Paper

143

Submitted to Universitas Pancasila

Student Paper

144

Submitted to University of Bradford

Student Paper

145

Xueyan Liu, Kumar Anupam, Sandra Erkens, Lijun Sun, Jianming Ling. "Green and Intelligent Technologies for Sustainable and Smart Asphalt Pavements", CRC Press, 2021

Publication

146

cantilever.id

Internet Source

147

ceej.aut.ac.ir

Internet Source

148

etheses.uin-malang.ac.id

Internet Source

149

jurnal.uns.ac.id

Internet Source

150

patentimages.storage.googleapis.com

Internet Source

151

Submitted to pnb

Student Paper

152

repository.lib.pcr.ac.id

Internet Source

153

repository.unair.ac.id

Internet Source

154

www.govserv.org

Internet Source

155

Greace Vilda Saptенno, Pieter Lourens Frans, Maslan Abdin. "POTENSI AGREGAT LOI DESA OUW, KECAMATAN SAPARUA TIMUR, KABUPATEN MALUKU TENGAH SEBAGAI PEMBUAT BETON", JURNAL SIMETRIK, 2026

Publication

156

Mochammad Qomaruddin, Ariyanto Ariyanto, Istianah Istianah, Fatimatuz Zahro. "PEMANFAATAN LIMBAH PLASTIK MENJADI AGREGAT PADA MORTAR GEOPOLIMER", Dinamika Rekayasa, 2020

Publication

157

Submitted to Morgan Park High School

Student Paper

158 arsitektur.untag-sby.ac.id

Internet Source

159 dewey.petra.ac.id

Internet Source

160 ejournal.utp.ac.id

Internet Source

161 eprints.ahmaddahlan.ac.id

Internet Source

162 journal.unita.ac.id

Internet Source

163 ojs.uph.edu

Internet Source

164 Militia Cristy Londa, Rilya Rumbayan, Seska Nicolaas. "Uji Karakteristik Campuran Ro Compacted Concrete Menggunakan Fly Ash Dan Coconut Fiber", Jurnal Teknik Sipil Terapan, 2022

Publication

165 documents.mx

Internet Source

166 eprints.ums.ac.id

Internet Source

167 journal.um-surabaya.ac.id

Internet Source

168 journal.unesa.ac.id

Internet Source

169 jurnal.poltekkespalu.ac.id

Internet Source

170 nesha trisedya amru. "STUDI PENAMBAHAN SERAT POLYPROPYLENE YANG TERKANDUNG PADA MASKER MEDIS TERHADAP KEKUATAN MORTAR.", Open Science Framework, 2023

Publication

171 repository.unibos.ac.id

Internet Source

172 repository.unismabekasi.ac.id

Internet Source

173 repository.unmuhjember.ac.id

Internet Source

174 repository.widyatama.ac.id
Internet Source

175 rumahlia.com
Internet Source

176 scriptaintelektual.com
Internet Source

177 Anastasia Septya Wardaningrum, Era Agita Kabdiyono, Ahmad Fachri Ilham Al Akma Iqbal Rusdiani et al. "Sosialisasi Inovasi material Menggunakan Silica Fume dan Fly A sebagai Bahan Tambah pada beton", Jurnal Abdi Masyarakat Multidisiplin, 2026
Publication

178 Arif Afrianto, Rendi Gusta Wibowo, Ari Cahyono. "Pengaruh Fly Ash dan Abu Vulkanil Sebagai Penambah Semen Terhadap Kuat Tekan Paving Berpori", Jurnal Teknik Indu Terintegrasi, 2024
Publication

179 B.R. Ramadhan, C.J. Lonardya, A.A. Adam, S.N. Akifa, S.N. Wahidin, F.R. Payung. "Effe of Activator Composition on the Setting Time and Compressive Srength Of Fly Ash– Lime-Based Geopolymer Paste", REKONSTRUKSI TADULAKO: Civil Engineering Journa on Research and Development, 2025
Publication

180 Imam Maskur. "PERANCANGAN CAMPURAN FLOW MORTAR UNTUK PEMBUATAN SE COMPACTING CONCRETE DENGAN FAS 0.5", Dinamika Rekayasa, 2017
Publication

181 Isyqi Aulia Rohmah, Iffah Muflihati. "Perubahan daya serap air tepung okara termodifikasi serta pengaruhnya pada tekstur dan sensoris nugget ayam", Agrokompleks, 2025
Publication

182 Submitted to Submitted on 1689051332353
Student Paper

183 eprints.walisongo.ac.id
Internet Source

184 etd.repository.ugm.ac.id
Internet Source

185 id.123dok.com
Internet Source

186 journal.univpancasila.ac.id
Internet Source

187 jurnal.fmipa.unila.ac.id
Internet Source

188 jurnal.polinema.ac.id
Internet Source

- 189 ojs.selodangmayang.com
Internet Source
-
- 190 ojs.unik-kediri.ac.id
Internet Source
-
- 191 repositorio.urp.edu.pe
Internet Source
-
- 192 repository.ppns.ac.id
Internet Source
-
- 193 repository.unhas.ac.id
Internet Source
-
- 194 thesesjournal.com
Internet Source
-
- 195 www.antarabogor.com
Internet Source
-
- 196 www.arahjuang.com
Internet Source
-
- 197 www.greeners.co
Internet Source
-
- 198 www2.mdpi.com
Internet Source
-
- 199 Bintang Putra Mahardhika, Dendi Irawan Irawan, Antonius Antonius. "Analisis Kuat Tekan, Kuat Tarik Belah, dan Kuat Lentur Beton Self Compacting Concrete (SCC) dengan Penambahan Abu Sekam Padi", RIGGS: Journal of Artificial Intelligence and Digital Business, 2026
Publication
-
- 200 Dany Cahyadi, Triastuti Triastuti, Anita Firmanti, Bambang Subiyanto. "Pemanfaatan Abu Terbang dan Sebuk Gergaji untuk Pembuatan Mortar Ringan Geopolimer", Jurnal Permukiman, 2012
Publication
-
- 201 Fepy Supriani, Mukhlis Islam. "PENGARUH METODE PERLAKUAN DALAM PERAWATAI BETON TERHADAP KUAT TEKAN DAN DURABILITAS BETON", Inersia, Jurnal Teknik Sipil, 2019
Publication
-
- 202 Meylinda Vricilia, Ahmad Ridwan, Agata Iwan Candra. "Kuat Tekan Pelat Beton Menggunakan Pasir Wlingi dan Wiremesh Diameter 4 mm", Jurnal Manajemen Teknologi & Teknik Sipil, 2020
Publication
-
- 203 Muhammad Zhafran Rafi Hamdan, Ahmad Hidayawan, Bagas Wahyu Adhi. "Inovasi Campuran Bata Ringan Berbasis Limbah Popok Bayi Dan Fly Ash Sebagai Material Bangunan Ramah Lingkungan", Seminar Nasional Teknik Sipil, 2025

-
- 204 Rohny S. Maail, Irfan Derlauw. "Sifat Fisis Dan Keunggulan Papan Semen Dari Limbal Kulit Batang Sagu", MAKILA, 2019
Publication
-

- 205 Submitted to Universitas Sangga Buana YPKP
Student Paper
-

- 206 edoc.pub
Internet Source
-

- 207 ejournal.unp.ac.id
Internet Source
-

- 208 ejournal.unsrat.ac.id
Internet Source
-

- 209 eprints.polbeng.ac.id
Internet Source
-

- 210 eprints.ummetro.ac.id
Internet Source
-

- 211 esdm.go.id
Internet Source
-

- 212 fr.scribd.com
Internet Source
-

- 213 garuda.kemdikbud.go.id
Internet Source
-

- 214 journal.unibos.ac.id
Internet Source
-

- 215 jts.itp.ac.id
Internet Source
-

- 216 jurnal.ummi.ac.id
Internet Source
-

- 217 jurnalpermukiman.pu.go.id
Internet Source
-

- 218 lib.ibs.ac.id
Internet Source
-

- 219 media.neliti.com
Internet Source
-

- 220 qccpc.atu.ac.ir
Internet Source
-

- 221 repositori.kemdikbud.go.id
Internet Source
-

222 repository.univ-tridianti.ac.id
Internet Source

223 repository.yudharta.ac.id
Internet Source

224 sucofindo.co.id
Internet Source

225 www.bphn.go.id
Internet Source

226 Eka Raza Pradesta, Agi Rivi Hendaridi, Risnandar Nurdianto. "PENGARUH ZAT ADDITIF TIPE F UNTUK BET-ON FAST TRACK OPEN TRAFFIC DALAM 7 HARI", JITSi : Jurnal Ilmiah Teknik Sipil, 2025
Publication

227 Yusuf Amran, Arif Wahyu Permana, Septyanto Kurniawan. "PEMANFAATAN LIMBAH PLASTIK JENIS POLYPROPYLENE SEBAGAI BAHAN UTAMA PAVING BLOCK PLASTIS DENGAN CAMPURAN ARANG SEKAM PADI MENGACU PADA SNI 03-0691-1996", TAP/ (Teknologi Aplikasi Konstruksi) : Jurnal Program Studi Teknik Sipil, 2024
Publication

228 digilib.uin-suka.ac.id
Internet Source

229 "Sustainable Construction and Building Materials", Springer Science and Business Media LLC, 2019
Publication

230 Alviansyah Walid Oktura, Agi Rivi Hendaridi, Risnandar Nurdianto. "PENGARUH LIMBAH KARET BAN SEBAGAI BAHAN TAMBAHAN AGREGAT KASAR TERHADAP KUAT LENTUR BETON NORMAL", JITSi : Jurnal Ilmiah Teknik Sipil, 2025
Publication

231 Amir Kerisna Adi, Ratna Widyawati, Dikpride Despa. "STUDI EKSPERIMENTAL KUAT TEKAN BETON K-350 DENGAN ADITIF SUPERPLASTICIZER SIKA VISCOCRETE-3115 N", Jurnal Rekayasa Lampung, 2025
Publication

232 Ayaz Ahmad, Waqas Ahmad, Fahid Aslam, Panuwat Joyklad. "Compressive strength prediction of fly ash-based geopolymers via advanced machine learning techniques", Case Studies in Construction Materials, 2022
Publication

233 Elia Anggarini, Dyah Pradhitya Hardiani. "PENGARUH PENAMBAHAN ABU TERBANG (FLY ASH) SEBAGAI SUBSTITUSI SEMEN TERHADAP KUAT TEKAN BETON MUTU NORMAL 30 MPa", Jurnal Kacapuri : Jurnal Keilmuan Teknik Sipil, 2023
Publication

234 Julyus Canser, Tri Serfus, Elly Tri Pujiastuti. "Pengaruh Kinerja Campuran Aspal AC-BT Dengan Penggantian Filler Batu Kapur", RIGGS: Journal of Artificial Intelligence and Digital Business, 2026

235

Muhammad Ryan Iskandar, Indra Suharyanto, Nurokhman Nurokhman, Singgih Cahyono. "ANALISIS PENGGUNAAN PASIR PANTAI JATIMALANG SEBAGAI BAHAN ALTERNATIF AGREGAT HALUS TERHADAP KUAT TEKAN MORTAR", CivETech, 2025

Publication

236

R. Wijaya, E. Edowinsyah. "Pengaruh Rasio Prekursor Agregat Halus Terhadap Karakteristik Mortar Geopolimer Tanah Liat", REKONSTRUKSI TADULAKO: Civil Engineering Journal on Research and Development, 2023

Publication

237

Romiyadi Romiyadi, Aldri Frinaldi, Dasman Lanin, Rembrandt Rembrandt. "Pembuatan papan blockboard menggunakan limbah batang kelapa sawit sebagai upaya pelestarian lingkungan", Jurnal Teknik Industri Terintegrasi, 2024

Publication

Exclude quotes On
Exclude bibliography On

Exclude matches Off

ANALISIS OPTIMALISASI METODE CURING TERHADAP PERILAKU MEKANIK MORTAR GEOPOLII BERBASIS FLY ASH DENGAN VARIASI AKTIVATOR DAN MOLARITAS NaOH

GRADEMARK REPORT

FINAL GRADE

GENERAL COMMENTS

/0

PAGE 1

PAGE 2

PAGE 3

PAGE 4

PAGE 5

PAGE 6

PAGE 7

PAGE 8

PAGE 9

PAGE 10

PAGE 11

PAGE 12

PAGE 13

PAGE 14

PAGE 15

PAGE 16

PAGE 17

PAGE 18

PAGE 19

PAGE 20

PAGE 21

PAGE 22

PAGE 23

PAGE 24

PAGE 25

PAGE 26

PAGE 27

PAGE 28

PAGE 29

PAGE 30

PAGE 31

PAGE 32

PAGE 33

PAGE 34

PAGE 35

PAGE 36

PAGE 37

PAGE 38

PAGE 39

PAGE 40

PAGE 41

PAGE 42

PAGE 43

PAGE 44

PAGE 45

PAGE 46

PAGE 47

PAGE 48

PAGE 49

PAGE 50

PAGE 51

PAGE 52

PAGE 53

PAGE 54

PAGE 55

PAGE 56

PAGE 57

PAGE 58

PAGE 59

PAGE 60

PAGE 61

PAGE 62

PAGE 63

PAGE 64

PAGE 65

PAGE 66

PAGE 67

PAGE 68

PAGE 69

PAGE 70

PAGE 71

PAGE 72

PAGE 73

PAGE 74

PAGE 75

PAGE 76

PAGE 77

PAGE 78

PAGE 79

PAGE 80

PAGE 81

PAGE 82

PAGE 83

PAGE 84

PAGE 85

PAGE 86

PAGE 87

PAGE 88

PAGE 89

PAGE 90

PAGE 91

PAGE 92

PAGE 93

PAGE 94

PAGE 95

PAGE 96

PAGE 97

PAGE 98

PAGE 99

PAGE 100

PAGE 101

PAGE 102

PAGE 103

PAGE 104

PAGE 105

PAGE 106

PAGE 107

PAGE 108

PAGE 109

PAGE 110

PAGE 111

PAGE 112

PAGE 113

PAGE 114

PAGE 115

PAGE 116

PAGE 117

PAGE 118

PAGE 119

PAGE 120

PAGE 121

PAGE 122

PAGE 123

PAGE 124

PAGE 125

PAGE 126

PAGE 127

PAGE 128

PAGE 129

PAGE 130

PAGE 131

PAGE 132

PAGE 133

PAGE 134

PAGE 135

PAGE 136

PAGE 137

PAGE 138

PAGE 139

PAGE 140

PAGE 141

PAGE 142

PAGE 143

PAGE 144

PAGE 145

PAGE 146

PAGE 147

PAGE 148

PAGE 149

PAGE 150

PAGE 151

PAGE 152

PAGE 153

PAGE 154

PAGE 155

PAGE 156

PAGE 157

PAGE 158

PAGE 159

PAGE 160

PAGE 161

PAGE 162

PAGE 163

PAGE 164

PAGE 165

PAGE 166

PAGE 167

PAGE 168

PAGE 169

PAGE 170

PAGE 171

PAGE 172

PAGE 173

PAGE 174

PAGE 175

PAGE 176

PAGE 177

PAGE 178

PAGE 179

PAGE 180

PAGE 181

PAGE 182

PAGE 183

PAGE 184

PAGE 185

PAGE 186

PAGE 187

PAGE 188

PAGE 189

PAGE 190

PAGE 191

PAGE 192

PAGE 193

PAGE 194

PAGE 195
