

List of articles authored by Prof. K.R. Rajagopal
[1978 – Present (July 2011)]



1. Uniqueness and drag for fluids of second grade in steady motion, *International Journal of Non Linear Mechanics*, **13**(3): 13 1-137 [1978] (with R.L. Fosdick).
2. Anomalous features in the model of “second order fluids,” *Archive for Rational Mechanics and Analysis*, **70** (2): 145-152 [1978] (with R.L. Fosdick).
3. Upper and lower bounds for the pressure error in the rectilinear flow along a slot with a pressure gradient, *Rheological Acta*, **18**: 456-462 [(with R.R. Huilgol).
4. Thermodynamics and stability of non-Newtonian fluids, *Developments in Mechanics*, Vol. **10** [1979] Manhattan, Kansas.
5. A note on the drag for fluids of grade three, *International Journal of Non-Linear Mechanics*, **14** (1): 361-364 [1980].
6. A boundary integral approach for determining pressure error, *Rheological Acta*, **19**: 12-18 [1980] (with A.M. Sadegh).
7. A useful correspondence principle in the theory of linear materials, *Journal of Elasticity*, **10** (4): 429-434 [1980] (with A.S. Wineman).
8. On Constitutive Equations for Branching of Response with Selectivity, *International Journal of Non-Linear Mechanics*, **15**:83-91 [1980] (with A.S. Wineman).
9. Thermodynamics and stability of fluids of third grade, *Proceedings of the Royal Society of London*, **369** (1738): 351-377 [1980] (with R.L. Fosdick).
10. Flow of a non-Newtonian fluid past projections and depressions, *The Journal of Applied Mechanics*, **47** (3) [1980] (with A.M. Sadegh).
11. Viscometric flows of third grade fluids, *Mechanics Research Communications*, **7** (1): 21-25 [1980].
12. On the stability of third grade fluids, *Archives of Mechanics*, **32** (6): 867-875 [1980].
13. On the decay of vortices in a second grade fluid, *Meccanica*, **9**: 185-186 [1980].
14. On a boundary layer theory for non-Newtonian fluids, *Letters in Applied and Engineering Science*, **18** (6): 875-883 [1980] (with A.S. Gupta and A.S. Wineman).
15. Applications of branching theory for modeling damage, *Report of the National Science Foundation Workshop on Damage*, Kentucky [1980] (with A.S. Wineman).
16. A note on the temperature dependence of the normal stress moduli, *International Journal of Engineering Science*, **19**: 237-241 [1981] (with A.S. Wineman).
17. Remarks on a creeping flow of an incompressible third grade fluid, *The Journal of Technology*, **26** (1): 67-71 [1981] (with A.S. Gupta).
18. On a class of exact solutions for the equations of motion of second grade fluid, *International Journal of Engineering Science*, **19** (6): 1009-1014 [1981] (with A.S. Gupta).
19. Applications of the theory of interacting media to diffusion processes in soft biological tissues, *Proceedings of the Biomechanics Division*, ASME Winter Annual Meeting, Washington, DC [1981] (with R.N. Vaishnav and A.S. Wineman).
20. Flow and stability of second grade fluid between rotating planes, *Archives of Mechanics*, **33** (5): 663-674 [1981] (with A.S. Gupta).
21. On the interaction of a fluid and a non-linear elastic solid, *Proceedings of the International Symposium on the Mechanical Behavior of Structural Media*, Ottawa, Canada [1981] (with J.J. Shi and A.S. Wineman).
22. The flow of a second order fluid between rotating parallel plates, *Journal of Non-Newtonian Fluid Mechanics*, **9**: 185-190 [1981].
23. Flow and stability of a second grade fluid between parallel plates, rotating about non-coincident axes, *International Journal of Engineering Science*, **19**, 1401-1409, [1981] (with A.S. Gupta).
24. Application of the theory of interacting continua to the diffusion of a fluid through a non-linearly elastic media, *International Journal of Engineering Science*, **19** (6): 871-889 [1981] (with A.S. Wineman and J. Shi).

25. On the flow of a simple fluid in an orthogonal rheometer, *Archive for Rational Mechanics and Analysis*, **79** (1): 39-47 [1982].
26. Boundedness and uniqueness of fluids of the differential type, *Acta Ciencia Indica*, **18** (1) [1982].
27. On the drag due to the flow of a simple fluid, *Inst. Lomb. Academe Scienze Lettere*, A 116:319- 326 [1982].
28. A note on unsteady unidirectional flows of a non-Newtonian fluid, *International Journal of Non Linear Mechanics*, **17**(5-6): 369-373 [1982].
29. Poiseuille flow of a non-Newtonian fluid, *Proceedings of the 10th IMACS World Congress on System Simulation and Scientific Computation*, Montreal [1982] (with E. Sciubba and C. von Kerzcek).
30. On the non-linear stability and flow of a conducting fluid past a porous flat plate in a transverse magnetic field, *Archive for Rational Mechanics and Analysis*, **83** (1): 91-98 [1983] (with A.S. Gupta and B.S. Dandapat).
31. On the existence of a manifold for temperature, *Archive for Rational Mechanics and Analysis*, **81** (4): 3 17-332 [1983] (with R.L. Fosdick).
32. Remarks on "A class of exact solutions to the equation of motion of a second grade fluid," *Letters in Applied Science and Engineering*, **21**(1): 61-63 [1983] (with A.S. Gupta).
33. The diffusion of a fluid through a highly elastic spherical membrane, *International Journal of Engineering Science*, **21**(10): 1171-1180 [1983] (with A.S. Wineman and J.J. Shi).
34. Flow of a BKZ fluid in an orthogonal rheometer, *Journal of Rheology*, **27** (5): 509-516 [1983] (with A.S. Wineman).
35. A note on the Falkner-Skan flows of a non-Newtonian fluid, *International Journal of Non-Linear Mechanics*, **17** (4): 113-320 [1983] (with T.Y. Na and A.S. Gupta).
36. On Stokes' problem for a non-Newtonian fluid, *Acta Mechanica*, **48** (2): 233-239 [1983] (with T.Y. Na).
37. Longitudinal and torsional oscillations of a rod in a non-Newtonian fluid, *Acta Mechanica*, **49**: 23 1-285 [1983].
38. A boundary integral method for laminar forced convection problems, *Mechanics Research Communication*, **10** (3): 181-186 [1983] (with A.M. Sadegh).
39. Pulsating Poiseuille flow of a non-Newtonian fluid, *Proceedings of the Ninth Canadian Congress in Applied Mechanics*, [1983] Saskatoon, Canada (with E. Sciubba).
40. A class of exact solutions for the flow of a viscoelastic fluid, *Archives of Mechanics*, **5**: 747-752 [1983] (with A.S. Wineman).
41. On a class of deformations of a material with non-convex stored energy functions, *Journal of Structural Mechanics*, **4** (12): 471-482 [1984] (with A.S. Wineman).
42. On the creeping flow of a second order fluid, *Journal of Non-Newtonian Fluid Mechanics*, **14**: 239-246 [1984].
43. A class of exact solutions to the Navier-Stokes equations, *International Journal of Engineering Science*, **22**: 45 1-458 [1984].
44. On the nature of stress power, *Rendiconti della Accademia di Scienze di Torino, Meccanica Razionale a Fisica Matematica*, **118**: 79-84 [1984].
45. Flow of a viscoelastic fluid over a stretching sheet, *Rheological Acta*, **23**: 213-215 [1984] (with T.Y. Na and A.S. Gupta).
46. An exact solution for the flow of a non-Newtonian fluid past an infinite porous plate, *Meccanica*, **19**: 158-160 [1984] (with A.S. Gupta).
47. Diffusion through polymeric solids undergoing large deformations, *Advances in Rheology*, **3**, Universidad Nacional Autonoma di Mexico, Mexico [1984].
48. Slow flow of an incompressible third grade fluid in a converging/diverging channel, *Journal of Technology*, **28** (2): 27-31 [1984] (with A.S. Gupta and J. Vossousghi).
49. Asymmetric flow between parallel rotating disks, *Journal of Fluid Mechanics*, **146**:203-225 [1984] (with C.Y. Lai and A.Z. Szeri).
50. Pulsating Poiseuille flow of a non-Newtonian fluid, *Mathematics and Computers in Simulation*, **3**(with E. Sciubba).
51. Natural convection flow of a non-Newtonian fluid between two vertical flat plates, *Acta Mechanica*, **54**: 239-246 [1985] (with T.Y. Na).
52. A universal relation in torsion for a mixture of solid and fluid, *Journal of Elasticity*, **15**: 155-165 [1985] (with A.S. Wineman and M.V. Gandhi).
53. New exact solutions in non-linear elasticity, *International Journal of Engineering Science*, **23**, No. 2:217-234 [1985] (with A.S. Wineman).
54. Flow of a non-Newtonian fluid between heated parallel plates, *International Journal of Non Linear Mechanics*, **20** (2): 91-101 [1985] (with A.Z. Szeri).

55. A boundary integral equation method for the study of some laminar forced convection problems, *Numerical Heat Transfer*, **8** [1985] (with A.M. Sadegh).
56. Asymmetric flow above a rotating disk, *Journal of Fluid Mechanics*, **157**: 471-492 [1985] (with C.Y. Lai and A.Z. Szeri).
57. Swirling flow, *Recent Developments in Structured Continua*, Windsor, Ontario, Canada [1985].
58. A plane non-linear shear for an elastic layer with a non-convex stored energy function, *International Journal of Solids and Structures*, **22**: 1129-1135 [1986] (with R.L. Fosdick and G. MacSithigh).
59. Swirling flow between rotating plates, *Archive for Rational Mechanics and Analysis*, **86**: 305-315 [1986] (with S.V. Parter). Also, in D.D. Joseph and F.M. Leslie (eds), *The Breadth and Depth of Continuum Mechanics*. Springer-Verlag: Berlin [1986].
60. An existence theorem for the flow of a non-Newtonian fluid past an infinite porous plate, *International Journal of Non-Linear Mechanics*, **21**: 279-289 [1986] (with A.Z. Szeri and W. Troy).
61. On boundary conditions for a certain class of problems in mixture theory, *International Journal of Engineering Science*, **24** (8): 1453-1463 [1986] (with A.S. Wineman and M.V. Gandhi).
62. A note on non-universal deformations of non-linear elastic layers, *Proceedings of the Royal Irish Academy*, **86A** (2): 107-114 [1986] (with W. Troy and A.S. Wineman).
63. Flow of viscoelastic fluids between plates rotating about distinct axes, *Rheological Acta*, **25**: 459-467 [1986] (with M. Renardy, Y. Renardy, and A.S. Wineman).
64. Pseudo-planar elastic deformations and motions of non-linear elastic solids, Special Volume in honor of Professor R. Berker's 75th Birthday, *Bulletin of the Technical University of Istanbul* [1986] Istanbul, Turkey (with M.M. Carroll).
65. Flow of a fluid of the differential type in a journal bearing, *Journal of Tribology*, **109** (1): 100-107 [1986] Also, presented at The ASME/ASLE Joint Meeting, October 20-22, Pittsburgh, Pennsylvania (with A. Kacou and A.Z. Szeri).
66. Asymmetric swirling flows and related problems in non-linear elasticity, *Proceedings of the Fifth International Symposium on Continuum Models of Discrete Systems*, Elsevier [1986].
67. New universal relations for non-linear isotropic elastic materials, *Journal of Elasticity*, **17**: 75-83 [1987] (with A.S. Wineman).
68. Flow of a non-Newtonian fluid between eccentrically rotating cylinders, *International Journal of Engineering Science*, **25** (8): 1029-1047 [1987] (with I. Christie and A.Z. Szeri).
69. Non-homogeneous tension-torsion of neo-Hookean and Mooney-Rivlin Materials, *Archives of Mechanics*, **39**: 551-559 [1987] (with R.M. Chao and A.S. Wineman).
70. Some non-linear diffusion problems within the context of the theory of interacting continua, *International Journal of Engineering Science*, **25**: 1441-1458 [1987] (with A.S. Wineman and M.V. Gandhi).
71. Flow of K-BKZ fluids between parallel plates rotating about distinct axes: shear thinning and inertial effects, *Journal of non-Newtonian Fluid Mechanics*, **22**: 289-307 [1987] (with M. Bower and A.S. Wineman).
72. Non-axisymmetric flow of a viscoelastic fluid between rotating disks; *Journal of Non-Newtonian Fluid Mechanics*, **23**: 423-434 [1987] (with R.R. Huilgol).
73. A non-similar boundary layer on a stretching sheet in a non-Newtonian fluid with uniform free stream, *Journal of Mathematical and Physical Sciences*, **21**: 189-200 [1987] (with T.Y. Na and A.S. Gupta).
74. On the uniqueness of flow of the Navier-Stokes fluid due to a stretching boundary, *Archive for Rational Mechanics and Analysis*, **98**(4): 385-394 [1987] (with J.B. McLeod). Also, in Antman, S.S., Brezis H., Coleman B.D., Feinberg M., Nohel J.A., Ziemer W.P. (eds), *Analysis and Continuum Mechanics*. Springer-Verlag: Berlin [1987].
75. A note on an unsteady viscometric flow, *International Journal of Engineering Science*, **26**: 649-652 [1988] (with M.M. Carroll).
76. On the existence of class deformations for incompressible isotropic elastic materials, *Proceedings of the Royal Irish Academy*, **88A**: 91-101 [1988] (with J.B. McLeod and A.S. Wineman).
77. An experimental investigation of the flow of non-Newtonian fluids between rotating disks, *Journal of Fluid Mechanics*, **186**: 243-256 [1988] (with A. Sirivat and A.Z. Szeri).
78. Changes in material symmetry associated with deformation: uniaxial extension, *International Journal of Engineering Science*, **26**: 1307-1318 [1988] (with A.S. Wineman and M. Neghaban).
79. Thermohydrodynamic analysis of a journal bearing with a non-Newtonian fluid, *Journal of Tribology*, **110**: 414-428 [1988] (with A. Kacou and A.Z. Szeri).

80. Universal relations for instantaneous deformations of viscoelastic fluids, *Rheological Acta*, **27**: 555-556 [1988] (with A.S. Wineman).
81. Swirling flows of viscoelastic fluids, *Computers and Structures*, **30**: 143-149 [1988].
82. Some recent results on the swirling flows of Newtonian and non-Newtonian fluids, Toscani, G., Boffi, V. and Rionero, S. (eds), *Lecture Notes in Mathematics, Mathematical Aspects of Fluid and Plasma Dynamics*, Springer-Verlag: Berlin [1988].
83. Combined extension and torsion of a swollen cylinder within the context of mixture theory, *Acta Mechanica*, **79**: 81-95 [1989] (with M. Gandhi, M. Usman and A.S. Wineman).
84. Stability of deformation of an elastic layer, *Archive for Rational Mechanics and Analysis*, **108**: 1- 10 [1989] (with Y.C. Chen).
85. Exact solutions in non-linear elastodynamics, *Archives of Mechanics*, **41**: 779-784 [1989] (with M. Massoudi and A.S. Wineman).
86. Some remarks on boundary conditions for the flows of fluids of the differential type, *Proceedings of the Canadian Applied Mathematics Society*, Barnaby, Canada [1989] (with P.N. Kaloni). Also, in *Continuum Mechanics and Its Applications*. Hemisphere Press [1989].
87. Swirling flows of Newtonian and non-Newtonian fluids between rotating plates, *Proceedings of the Seventh International Conference on Finite Element Method in Flow Problems*, Huntsville, Alabama, April 3-7 [1989].
88. Longitudinal & torsional oscillations of a rod in a simple fluid, *Journal of Mathematical & Physical Sciences*, **23**: 445-479 [1989] (with P.N. Kaloni and L. Tao).
89. Multiplicity of solutions in von Karman flows of viscoelastic fluids, *Journal of Non-Newtonian Fluid Mechanics*, **36**: 1-25 [1990] (with Z. Ji and A.Z. Szeri).
90. On the conditional stability of the rest state of a fluid second grade in unbounded domains, *Archive for Rational Mechanics and Analysis*, **109**: 173-182 [1990] (with G.P. Galdi and M. Padula).
91. Non-homogeneous deformation in a wedge of Mooney-Rivlin material, *International Journal of Non-Linear Mechanics*, **25**: 1-13 [1990] (with D. Fu and A.Z. Szeri).
92. On a constitutive theory for materials undergoing microstructural changes, *Archives of Mechanics*, **42**: 53-57 [1990] (with A.S. Wineman).
93. On a class of exact solutions in elastodynamics, *Proceedings of the Royal Irish Academy*, **90A**: 205-214 [1990].
94. Diffusion of fluids through transversely isotropic non-linearly elastic solids undergoing large deformations, *Acta Mechanica*, **82**: 61-98 [1990] (with F. Dai).
95. Diffusion of a fluid through an anisotropic thick spherical shell, *Acta Mechanica*, **85**: 79-97 [1990] (with F. Dai).
96. Current research in cavitating fluid film, D. Brewe, J.H. Ball and M. Khonsari (eds) *STLE Special Publication: SB-28* [1990] (with A.Z. Szeri).
97. Mathematical modeling of fluid-solid mixtures, D. Dekee and P.N. Kaloni (eds) *Recent Developments in Structured Continua*, **II**: 249-292 [1990] (with M. Massoudi and J Ekmann). Longmans Scientific and Technical: United Kingdom.
98. Developments in the mechanics of interactions between a fluid and a highly elastic solid, D. Dekee and P.N. Kaloni (eds) *Recent Developments in Structured Continua*, **II**: 236-248 [1990] (with A.S. Wineman), Longmans Scientific and Technical: United Kingdom.
99. On non-homogeneous deformations of non-linearly elastic materials and their stability, S. Rionero (ed), *Waves and Stability in Continuous Media*. World Scientific [1990].
100. On an inhomogeneous deformation of an isotropic compressible elastic material, *Archives of Mechanics*, **42**: 729-736 [1990].
101. Stagnation point flow of a non-Newtonian fluid, *Mechanics Research Communications*, **17**: 415- 421 [1990] (with V.K. Garg).
102. Diffusion through non-linear orthotropic cylinders, *International Journal of Engineering Science*, **29**: 419-447 [1991] (with F. Dai and A.S. Wineman).
103. Some unsteady exact solutions in the Navier-Stokes and second grade fluid theories, *Stability and Applied Analysis of Continua*, **1**: 185-204 [1991] (with P. Boulanger and M.A. Hayes).
104. Flow of a shear thinning fluid between intersecting planes, *International Journal of Non-Linear Mechanics*, **26**: 769-775 [1991] (with D. Mansutti).
105. Flow of a non-Newtonian fluid through axisymmetric pipes of varying cross-sections, *International Journal of Non-Linear Mechanics*, **26**: 777-792 [1991] (with S. Kasivisvanathan and P.N. Kaloni).
106. A numerical study of a K-BKZ fluid between rotating plate rotating about non-coincident axes, *Journal of Non-Newtonian Fluid Mechanics*, **38**: 289-312 [1991] (with R.X. Dai and A.Z. Szeri).
107. Flow of a non-Newtonian fluid past a wedge, *Acta Mechanica*, **88**: 113-123 [1991] (with V.K. Garg).

108. Flow of a fluid-solid mixture between flat plates, *Chemical Engineering Science*, **46**: 1713-1723 [1991] (with G. Johnson and M. Massoudi).
109. Flow of a fluid infused with solid particles through a pipe, *International Journal of Engineering Science*, **29**: 649-661 [1991] (with G. Johnson and M. Massoudi).
110. Unsteady diffusion of fluids through solids undergoing large deformations, *Mathematical Models and Methods in Applied Sciences*, **1**: 311-346 [1991] (with L. Tao and A.S. Wineman).
111. Inhomogeneous deformations and motions of linearly elastic materials, S. Rionero, G. Mulone and F. Salemi (eds), *Le Matematiche*, **XLVI**: 329-341 [1991].
112. Couette flow of a fluid infused with particles between concentric cylinders, Massoudi, M. and Rajagopal, K.R. (eds), *Recent Advances in Mechanics of Structured Continua*, AMD-Vol. 117 (with G.A Johnson and M. Massoudi). ASME: New York [1991]
113. Stability of flows of granular solids, Massoudi M and Rajagopal KR (eds), *Recent Advances in Mechanics of Structured Continua*: AMD- **117**. ASME: New York [1991](with G.P. Galdi and M. Padula).
114. Some Recent Results on swirling flow of Newtonian and Non-Newtonian Fluids, *Lecture Notes in Mathematics*, **1460**, 171-185 [1991].
115. A constitutive equation for non-linear elastic materials which undergo deformation induced microstructural changes, *International Journal of Plasticity*, **8**: 385-395 [1992] (with A.S. Wineman).
116. Inhomogeneous Deformations of Non-linear Elastic Wedges, *International Journal of Solids and Structures*, **29**, pp. 735-744 [1992] (with M.M. Carroll).
117. On an inhomogeneous deformation of a generalized neo-Hookean material, *Journal of Elasticity*, **28**: 165-184 [1992] (with L. Tao).
118. Non-uniform extension of a non-linear viscoelastic slab, *International Journal of Solid and Structures*, **29**: 911-930 [1992] (with F. Dai and A.S. Wineman).
119. Circular shearing and torsion of generalized neo-Hookean materials, *IMA Journal of Applied Mathematics*, **48**: 1-15 [1992] (with L. Tao and A.S. Wineman).
120. Existence of solutions to the equations governing the flow of granular materials, *European Journal of Mechanics*, **11**: 265-276 [1992] (with W. Troy and M. Massoudi).
121. Flow of viscoelastic fluids between rotating plates, *Theoretical and Computational Fluid Dynamics*, **3**: 185-206 [1992].
122. Flow of electroheological materials, *Acta Mechanica*, **91**: 57-75 [1992] (with A.S. Wineman).
123. Some inhomogeneous motions and deformations within the context of a non-linear elastic solid, *International Journal of Engineering Science*, **30**: 919-938 [1992] (with J.P. Zhang).
124. Wave propagation through solids infused with fluids, *International Journal of Engineering Science*, **30**: 1209-1232 [1992] (with L. Tao).
125. Secondary deformation due to axial shearing of a cylinder of non-circular cross-section, *International Journal of Engineering Science*, **30**: 1247-1256 [1992] (with J.P. Zhang).
126. Remarks on the modeling of fluidized systems, *American Institute of Chemical Engineering Journal*, **38**: 471-473 [1992] (with M. Massoudi, J. Ekmann, and M. Mathur).
127. Flows between rotating plates, G. Buzzatto, G.P. Galdi and L. Zanghiratti (eds) *Developments in Partial Differential Equations and Applications to Mathematical Physics*, pp. 121-134. Plenum Press: New York and London [1992].
128. Inhomogeneous finite amplitude motions in a neo-Hookean solid, *Proceedings of the Royal Irish Academy*, **92A**: 137-147 [1992] (with M.A. Hayes).
129. Shear induced redistribution of fluid with a uniformly swollen non-linear elastic cylinder, *International Journal of Engineering Science*, **30**: 1583-1595 [1992] (with A.S. Wineman).
130. Unsteady diffusion of fluids through a non-linear elastic cylindrical annulus, *International J. Nonlinear Mechanics*, **28** (1): 43-55 [1992] (with L. Tao).
131. A Single Integral Finite Strain (SIFS) Viscoelastic Model of Ligaments and Tendons, *Advances in Bioengineering*, **22**: 245-248 [1992] (with G.A. Johnson, G.A. Livesay, S.Y.L. Woo).
132. Flow of a non-Newtonian fluid between two intersecting planes, one of which is moving, *Rheological Acta*, **32**: 490-498 [1993] (with Yu-ning Huang and R. Bhatnagar).
133. Proportional Shearing of a Non-linear Viscoelastic Layer, *International J. Non-linear Mechanics*, **28** (1): 57-68 [1993] (with F. Dai).
134. Material identification technique for vascular tissue, Bidez, M (ed) *Advances in Bioengineering* (ASME), **22**: 261-264 [1993] (with D.A. Vorp, P.J. Smolinski, and H.S. Borovetz).

135. A boundary value problem in groundwater motion analysis- comparison of predictions based on Darcy's law and the continuum theory of Mixtures, *Mathematical Models and Methods in Applied Science*, **3**:231-248 [1993] (with D. Munaf, D. Lee and A.S. Wineman).
136. Lubrication with binary mixtures: liquid-liquid emulsion, *Journal of Tribology*, **115**: 46- 55 [1993] (with A. Al-Sharif, K. Chamniprasart and A.Z. Szeri).
137. Lubrication with mixtures: bubbly oils, *Journal of Tribology*, **115**: 253-260 [1993] (with K. Chamniprasart, A. Al-arabi and A.Z. Szeri).
138. Flow of an Oldroyd-B fluid between intersecting planes, *Journal of Non-Newtonian Fluid Mechanics*, **46**: 49-67 [1993] (with R. Bhatnagar and G. Gupta).
139. Lubrication with binary mixtures: liquid-liquid emulsion in EHL contact, *Journal of Tribology*, **115**: 515-522 [1993] (with S.H. Wang, A. Al-Sharif, and A.Z. Szeri).
140. Non-similar flow of a non-Newtonian fluid past a wedge, *International Journal of Engineering Science*, **31**: 637-647 [1993] (with D. Mansutti and G. Pontrelli).
141. Steady flows of non-Newtonian fluids past a porous plate with suction or injection, *International Journal of Numerical Methods in Fluids*, **17**: 927-941 [1993] (with D. Mansutti and G. Pontrelli).
142. On the mechanics of a mixture of a fluid and particulate solids, Rajapakse, YDS (ed), *ASME-AMD*, **152**: 249-265 [1993] (with M. Massoudi).
143. Application of a microstructural damage theory to model arterial aneurysm formation, *Annals of Biomedical Engineering*, **21**: 30 [1993] (with D.A. Vorp, M.L. Raghavan, and M.W. Webster).
144. Lubrication with emulsion in cold rolling, *Journal of Tribology*, **115**: 523-531 [1993] (with S.H. Wang and A.Z. Szeri).
145. Mechanics of non-Newtonian fluids, G.P. Galdi and J. Necas (eds), *Recent Developments in Theoretical Fluid Mechanics*, pp. 129-162 [1993] *Pittman Research Notes in Mathematics Series*, **291**, Longman's Scientific and Technical.
146. Modeling electrorheological materials using mixture theory, Siginer A., Kim S. and Bajura R. (eds), *Electrorheological Flows*, ASME-FED, **164**: 1-9 [1993] (with A.S. Wineman and R.C. Yalamanchili).
147. Wave propagation in swollen elastic solids, *Recent Advances in Mechanics of Structured Continua*, AMD Vol. 160, MD **41**, ASME [1993] (with L. Tao).
148. The flow of granular materials in a pipe: numerical solutions, *Recent Advances in Mechanics of Structured Continua*, AMD- **160**, ASME [1993] (with R. Gudhe, M. Massoudi and R.C. Yalamanchili).
149. Flow of a second grade fluid over a porous elastic sheet due to stretching, *Journal of Mathematical and Physical Sciences*, **27**: 353-367 [1993] (with M. Massoudi and C.E. Maneschy).
150. Modeling electrorheological materials using mixture theory, *International Journal of Engineering Science*, **32**: 481-500 [1994] (with A.S. Wineman and R.C. Yalamanchili).
151. Finite circumferential shearing of non-linear solids within the context of thermoelasticity, *IMA Journal of Applied Mathematics*, **50**: 22-36 [1994] (with Yu-Ning Huang).
152. On necessary conditions for the secondary flow of non-Newtonian fluids in straight tubes, *International Journal of Engineering Science*, **32**: 1277-1281 [1994] (with Yu-ning Huang).
153. On boundary conditions in mixture theory, Rajagopal, KR (ed.), *Recent Advances in Elasticity and Viscoelasticity*. World Scientific Publishing: Singapore-New Jersey-London-Hong Kong [1994] (with L. Tao).
154. Fully developed flow of granular materials down a heated inclined plane, *Acta Mechanica*, **103**: 63-78 [1994] (with R. Gudhe and M. Massoudi).
155. On flows of granular materials, *Continuum Mechanics and Thermodynamics*, **6**: 81-139 [1994] (with K. Hutter).
156. Flow of granular materials in a vertical channel under the action of gravity, *Powder Technology*, **81**(1): 65-73 [1994] (with R.C. Yalamanchili and R. Gudhe).
157. Inhomogeneous shearing motions of an annular cylinder of a generalized neo-Hookean material, *Bulletin of the Technical Univ. Istanbul*, **47**: 25-42 [1994] (with J.P. Zhang and A.S. Wineman).
158. Flow of granular materials between rotating disks, *Mechanics Research Communications*, **21**: 629- 634 [1994] (with M. Massoudi and A.S. Wineman).
159. On necessary and sufficient conditions for turbulent secondary flows in a straight tube, *Mathematical Models and Methods in Applied Sciences*, **5** (I): 111-113 [1995] (with Yu-ning Huang).
160. Fluids of differential type: critical review and thermodynamic analysis, *International Journal of Engineering Science*, **33**: 689-729 [1995] (with J.E. Dunn).
161. Boundary layers in finite thermoelasticity, *Journal of Elasticity*, **36**: 271-301 [1995].
162. On constitutive equations for electrorheological materials, *Continuum Mechanics and Thermodynamics*, **7**: 1-22 [1995] (with A.S. Wineman).

163. Identification of elastic properties of homogeneous, orthotropic vascular segments in distension, *Journal of Biomechanics*, **28** (5): 501-512 [1995] (with D.A. Vorp, P.J. Smolinski and H.S. Borovetz).
164. An experimental investigation of the flow of dilute polymer solutions through corrugated channels, *Journal of Non-Newtonian Fluid Mechanics*, **58**: 243-277 [1995] (with A. Sirivat and R.C. Yalamanchili).
165. On some unsteady motions of fluids of second grade, *Archives of Mechanics*, **47**: 66 1- 676 [1995] (with R. Bandelli and G.P. Galdi).
166. Some inhomogeneous motions and deformations within the context of thermoelasticity, *Transactions of the Canadian Society of Mechanical Engineers*, **19**: 93-126 [1995] (with E. Lapczyk).
167. Boundary layers in non-linear fluids, *Trends in applications of mathematics to mechanics*, (eds.) MDP Monteivo Marques and J.F. Rodrigues. In *Pittman Monographs and Surveys in Pure and Applied Mathematics*, Longman, **77**: 209-218 [1995].
168. Flow of an Oldroyd-B fluid due to a stretching sheet, *International Journal of Non-Linear Mechanics*, **30**, 391-405 [1995] (with R. Bhatnagar and G. Gupta).
169. A mathematical model for shear-induced hemolysis, *Artificial Organs*, **19**, 576-582 [1995] (with K. Yeleswarapu, J. F. Antaki and M. K. Kameneva).
170. On the inelastic behavior of solids, Part 1: Twinning, *Journal of Plasticity*, **11**: 653-678 [1995] (with A. Srinivasa).
171. Existence and regularity of solutions and the stability of rest state for fluids with shear dependent viscosity, *Mathematical Methods and Models in Applied Sciences*, **5**: 789-812 [1995] (with J. Malek and M. Ruzicka).
172. Gravity flow of a fluid-particle mixture in a channel, *AIChE Symposium series*, Number 308: 91 [1995] (with R. Gudhe, M. Massoudi and R.C. Yalamanchili).
173. Exact solutions for some simple flows of an Oldroyd-B fluid, *Acta Mechanica*, **113**: 233-240 [1995] (with R.K. Bhatnagar).
174. Start-up flows of second grade fluids in domains with one finite dimension. *International Journal of Non-Linear Mechanics*, **30**, 817-840 [1995] (with R. Bandelli).
175. On boundary conditions for fluids of the differential type, In *Navier-Stokes Equations and Related Non-Linear Problems* (Ed. A. Sequiera), Plenum Press [1995].
176. On the modeling of electrorheological materials, *Mechanics Research Communications*, **23**: 401- 407 [1996] (with M. Ruzicka).
177. Chemorheological Relaxation, Residual Stress, and Permanent Set Arising in Radial Deformation of Elastomeric Hollow spheres, *Journal of Mathematics and Mechanics of Solids*, **1**, 267-299 [1996] (with H. Huntley and A.S. Wineman).
178. On "Boundary Layer"-like structures in Finite thermo elasticity, In *Nonlinear effects in Fluids and Solids*, (M.M. Carroll and M.A. Hayes, eds.), Mathematical concepts and methods in science and engineering, **45**, 287-296, Plenum Press, New York-London, [1996].
179. A Single Integral Finite Strain Viscoelastic Model of Ligaments and Tendons, *Journal of Biomechanical Engineering*, **118**, 221-226 [1996] (with G.A. Johnson, G.A. Livesay and S.L.Y. Woo).
180. On a generalized model for non-linear K- ϵ model for turbulence that models relaxation effects, Part I: Theory, *Theoretical and Computational Fluid Mechanics*, **8**, 275-288 [1996] (with Y. Huang).
181. An introduction to mixture theory, In *Mathematical theory in fluid mechanics*, (eds: G.P. Galdi, J. Malek and J. Necas) Pitman Research Notes in Mathematics Series, **354**, 86-1 13, Longman [1996].
182. Deformations of non-linear elastic solids in unbounded domains, *Mathematics and Mechanics of Solids*, **1**, 463-472 [1996].
183. On the falling of objects in non-Newtonian fluids (with R. Bandelli), *Annali di Ferrara*, **39**, 1-18 [1996].
184. Inhomogeneous deformations in finite thermoelasticity, *International Journal of Engineering Science*, **34**, 1005-1018 [1996] (with M. Massoudi and C.E. Maneschy).
185. Buoyancy induced deformations in a compressible elastic solid, *International Journal of Non Linear Mechanics*, **31**, 811-822 [1996] (with F. Baldoni).
186. On the Oberbeck-Boussinesq approximations, *Mathematical Models and Methods in the Applied Sciences*, **6**, #8, 1157-1167, [1996] (with A.R. Srinivasa and M. Ruzicka).
187. Flow of a non-Newtonian fluid between intersecting planes, one of which is moving, *Rheologica Acta*, **35**, 520-522 [1996] (with R.K. Bhatnagar and A.M. Robertson).
188. On an exact solution for the flow of an Oldroyd-B fluid, *Bulletin of the Technical University of Istanbul*, **49**, 1-10 [1996].
189. Stability of flow in fluidized beds, *Journal of Particulate Science and Technology*, **14**, 185-211 [1996] (with G. Gupta and M. Massoudi).

190. Slow motion of a body in a fluid of second grade, *International Journal of Engineering Science*, **35**, 33-54 [1997] (with G.P. Galdi).
191. A continuum theory for the thermomechanics of solidification, *International Journal of Non-Linear Mechanics*, **32**(1), 3-20 [1997] (with F. Baldoni).
192. Inelastic behavior of materials - II: Energetics associated with discontinuous twinning, *International Journal of Plasticity*, **13**, 1-35 [1997] (with A.R. Srinivasa).
193. Conditions of compatibility for the solid-liquid interface, *Quarterly of Applied Mechanics*, **55**, 401-411 [1997] (with F. Baldoni).
194. Secondary Deformations Due to Axial Shearing of the Annular Shearing of the Annular Region Between Two Eccentrically Placed Cylinders, *Journal of Elasticity*, **48**, 103-123 [1997] (with F. Mollica).
195. On a class of elastodynamic motions in a neo-Hookean elastic solid, *International Journal of Non Linear Mechanics*, **33** (3), 397-405 [1997].
196. Stress softening, strain localization and permanent set in the circumferential shear of an incompressible elastomeric cylinder, *IMA Journal of Applied Mathematics*, **59**, 309-338 [1997] (with H.E. Huntley and A.S. Wineman).
197. Finite thermoelasticity of constrained elastomers subject to bi-axial loading, *Journal of Elasticity*, **49**, 189-200 [1997] (with J. Humphrey).
198. A Phenomenological Model of Twinning Based on Dual Reference Structures, *Acta materialia*, **46**, 1235-1248 [1998] (with A.R. Srinivasa and R.W. Armstrong).
199. Deformation Twinning During Impact - Numerical Calculations Using a Constitutive Theory Based on Multiple Natural Configurations, *Computational Mechanics*, **21**, 20-27 [1998] (with E. Lapczyk and A.R. Srinivasa).
200. The flow of blood in tubes-theory and experiment, *Mechanics Research Communication*, **25**, 257- 262 [1998] (with K. Yeleswarapu, M. Kamaneva and J.F. Antaki).
201. A linearized theory for material undergoing microstructural change, *ARI*, **51**, 160-168 [1998] (with A.S. Wineman).
202. Mechanics of Inelastic behavior of materials: Part I, *International Journal of Plasticity*, **14**, 945- 968 [1998] (with A.R. Srinivasa).
203. Mechanics of Inelastic behavior of materials: Part II, *International Journal of Plasticity*, **14**, 969- 998 [1998] (with A.R. Srinivasa).
204. Secondary flows due to axial shearing of a third grade fluid between two eccentrically placed cylinders, *International Journal of Engineering Science*, **37**, 411-429 [1999] (with F. Mollica).
205. On the existence and uniqueness of multipolar fluids of grade three and their stability. In Press. *International Journal of Engineering Science*, **37**, 75-96 [1999] (with H. Bellout and J.Necas).
206. Mechanics of electroactive elastomers, *Acta Mechanica*, **135**, 219-228 [1999] (with A.S. Wineman).
207. On some simple flows of a Johnson-Segalman fluids, *Acta Mechanica*, **132**, 209-219 [1999] (with J. Rao).
208. Effect of the slip boundary condition on the flow of fluids in a channel, *Acta Mechanica*, **135**, 113- 126, [1999] (with I.J. Rao).
209. On the mechanics of shape memory wires, *Zeitschrift fur Angewandte Mathematik und Physik*, **50**, 459-496, [1999] (with A.R. Srinivasa).
210. On the fully developed flow of a dense particulate mixture in a pipe, *Powder Technology*, **104**, 258-268 [1999] (with Massoudi and T.X. Phuoc).
211. Remarks on "On a generalized non-linear K- ϵ model and the use of extended thermodynamics in turbulence", *Theoretical and Computational FluidDynamics*, **13**, 167-169 [1999] (with Yu-Ning Huang).
212. Flows of bubbly fluids, *Applied Mechanics and Engineering*, **4**, 407-442 [1999] (with L. Tao).
213. Inhomogeneous Non-unidirectional deformations of a wedge of non-linearly elastic, *Archive for Rational Mechanics and Analysis*, **147**, 176-196 [1999] (with J.B. McLeod).
214. Intelligent cruise control systems and traffic flow stability, *Transport Research C*, **7**, 329-352 [1999] (with S. Darbha).
215. A thermodynamic framework for rate type materials, *Journal of non-Newtonian Fluid Mechanics*, **88**, 207-228 [2000] (with A.R. Srinivasa).
216. Phenomenological modeling of polymer crystallization using the notion of multiple natural configurations, *Interfaces and Free Boundaries*, **2**, 73-94 [2000] (with I.J. Rao).
217. Analysis of squeeze film dampers operating with bubbly lubricants, *J. Tribology*, **122**, 205-210 [2000] (with L. Tao, S. Diaz, L. San Andres).

218. Application of a constitutive equation for softening, yield and permanent deformation to finite plane simple shear, *Archives of Mechanics*, **52**, 443-479 [2000] (with H.E. Huntley and A.S. Wineman).
219. Deformation twinning during impact of a titanium cylinder; numerical calculations using a constitutive theory based on multiple natural configurations, *Computational Methods in Applied Mechanics*, **188**, 527-541 [2000] (with E. Lapczyk and A.R. Srinivasa).
220. A rheometer for measuring the properties of granular materials, *Particulate Science and Technology*, **18**, 39-55 [2000] (with G. Gupta, R.C. Yalamanchili).
221. A PDF formulation of Turbulence Modeling of Single-Point Closure, *International Journal of Non-Linear Sciences and Numerical Simulation*, **1**, 299-304 [2000] (with L. Tao and G.Q. Chen).
222. A study of strain-induced crystallization of polymers, *Intl. Journal of Solids and Structures*, **38**, 1149-1167 [2000] (with I.J. Rao).
223. A formulation on large eddy simulation, *Communications in Nonlinear Science and Numerical Simulation*, **5**, 95-90 [2000] (with G.O. Chen and L. Tao).
224. On the Flow of Mixtures between Parallel Plates, *Recent Advances in the Mechanics of Structured Continua* [Ed. M. Massoudi and K. R. Rajagopal], **AMD, 244, MD, 92**, 25-137 [2000].
225. Oberbeck-Boussineq equations, In *Encyclopaedia of Mathematics*, Supplement II, 369-370, Kluwer Academic Publishers, Dordrecht, Netherlands [2000] (with J. Malek).
226. A thermodynamic framework for the superplastic response of materials, *Mater. Sci. Forum*, 357-3: 261-271 [2001] (with N. Chandra).
227. Load maximum behavior in the inflation of hollow spheres of incompressible material with strain- dependent damage, *Q. Appl. Math.*, **59**, (2): 193-223, [2001] (with H. Huntley and A.S. Wineman).
228. On the influence of the deformation of the forming solid in the solidification of a semi-infinite water layer of fluid, *Math Mod. Meth. Appl. S.*, **11** (2): 367-386 [2001] (with D. Mansutti and F. Baldoni).
229. Mathematical modeling of electrorheological materials, *Continuum Mech. Therm.*, **13**(1): 59-78 [2001] (with M. Ruzicka).
230. On the modeling of dissipating processes, *Differential Equations and Nonlinear Mechanics* (ed. K. Vajravelu), Kluwer Academic, Dordrecht- Boston-London [2001].
231. The Inelastic behavior of metals subject to loading reversal, *International Journal of Plasticity*, **17**, 1119-1146 [2001] (with F. Mollica and A.R. Srinivasa).
232. The application of ideas associated with materials with memory to modeling the inelastic behavior of solid bodies, *International Journal of Plasticity*, **17**, 1087-1117 [2001] (with S. Makosey).
233. Simple flows of fluids with pressure dependent viscosities, *Proc. Royal Soc. Lond., Series*, **457**, 1603-1622 [2001] (with J. Hron and J. Malek).
234. Modeling anisotropic fluids within the framework of bodies with multiple natural configurations, *Journal of Non-Newt. Fluid Mech.*, **99**, 109-124 [2001] (with A.R. Srinivasa).
235. A mixture theory for heat-induced alterations in hydration and mechanical properties in soft tissues, *Intl. J. Engng. Science*, **39**, 1535-1556 [2001] (with L. Tao and J.D. Humphrey).
236. Aggregation of a class of interconnected, linear dynamical systems, *System Control letters*, **42**, 387-401 [2001] (with S. Darbha).
237. Aggregation of a class of large-scale interconnected non-linear dynamical systems, *Mathematical Problems in Engineering*, **7**, 379-392 [2001] (with D. Swaroop).
238. On the form for the plastic velocity gradient in crystal plasticity, *Mathematics and Mechanics of Solids*, **6**, 471-480 [2001] (with G. Rengarajan).
239. Measurements related to the flow of granular material in a torsional rheometer, *Particulate Science and Technology*, **19**, 175-186 [2001] (with S. Baek and A.R. Srinivasa).
240. Boundary Layer Solutions in Elastic Solids, *Journal of Elasticity*, **62**, 203-216 [2001] (with Y.C. Chen).
241. Special Issue on large deformation inelasticity, *International Journal of Plasticity*, **17**, 1031(2001) (with A. R. Srinivasa).
242. A Thermodynamic Framework for the modeling of crystallization in polymers, *Zeitschrift fur Angewandte Mathematik und Physik*, **53**, 365-406 [2002] (with I.J. Rao).
243. A constrained mixture model for growth and remodeling of soft tissues, *Mathematical Models and Methods in the Applied Sciences*, **12**, 407-430 [2002] (with J.D. Humphrey).
244. Effect of non-linear stiffness on the motion of a flexible pendulum, *Non-Linear Dynamics*, **27**, 1- 18 [2002] (with K. Zaki, S. Noah and A.R. Srinivasa).

245. Limit of a collection of dynamical systems: An application to the modeling of the flow of traffic, *Mathematical Models and Methods in the Applied Sciences*, **12**, 1381-1399 [2002] (with S. Darbha).
246. A new perspective on random walk modeling of particle dispersion, *Communications in Non Linear Science and Numerical Simulations*, **7**, 155-162 [2002] (with L. Tao and A.R. McFarland).
247. Global existence of solutions for flows of fluids with pressure and shear dependent viscosities, *Applied Mathe. Letters*, **15**, 96 1-967 [2002] (with J. Malek and J. Necas).
248. A mathematical model to describe the change in the constitutive character of blood due to platelet, *CR Mecanique*, **330**, 557-562 [2002] (with M. Anand).
249. A thermomechanical framework for the glass transition phenomenon in certain polymers and its application to fiber spinning, *Journal of Rheology*, **46**, 977-999 [2002] (with K. Kannan and I.J. Rao).
250. Modeling of the microwave drying process of aqueous dielectrics, *Zeitschrift fur Angewandte Mathematik und Physik*, **53**, 1-26 [2002] (with L. Tao).
251. Global Analysis of flows of Fluids with Pressure- Dependent viscosities, *Archive for Rational Mechanics and Analysis*, **165**, 243-269 [2002] (with J. Malek and J. Necas).
252. Material Identification of Nonlinear Solids infused with a fluid, *Mathematics and Mechanics of Solids*, **Vol. 7**, 629-646 [2002] (with J. Hron and J.D. Humphrey).
253. Numerical Simulations and Global Existence of Solutions of Two Dimensional Flows of Fluids with Pressure and Shear Dependent Viscosities, *Mathematics and Computers in Simulation*, **61**, 297-3 15 [2003] (with J. Hron, J. Malek, and J. Necas).
254. Gas mixing for achieving suitable conditions for simple point aerosol sampling in a straight tube: experimental and numerical results, *Health Physics*, **84**, 82-91 [2003] (with M. Anand and A. McFarland).
255. Inhomogeneous deformations of a cone of neo-Hookean solid, *Intl. Journal of Non-Linear Mechanics*, **38**, 957-967 [2003] (with H. Pradeep).
256. On Implicit constitutive Theories, *Application of Mathematics*, **Vol. 28**, no. 4, 279-319 [2003].
257. On the Role of Inhomogeneities in the Deformation of Elastic Bodies, *Mathematics and Mechanics of Solids*, **Vol. 8**, 349-376 [2003] (with U. Saravanan).
258. A Comparison of the response of Isotropic Inhomogeneous elastic cylindrical and Spherical Shells and their homogenized Counterparts, *Journal of Elasticity*, **Vol. 71**, 205-233 [2003] (with U. Saravanan).
259. On the Effect of dissipation in shape-memory alloys, *Nonlinear analysis: Real World Applications*, **VOL. 4**, 581-597 [2003] (with T. Roubicek).
260. Diffusion through polymeric solids undergoing large deformations, *Materials Science and Technology*, **Vol. 19**, 1175-1180 [2003].
261. On an inconsistency in the derivation of the equations of elastohydrodynamic lubrication, *Proc. R. Soc. London A*, **Vol. 459**, 2771-2786 [2003] (with A.Z. Szeri).
262. Biological Growth and Remodeling: A Uniaxial Example with possible application to Tendons and Ligaments, *CMES*, **Vol. 4**, no. 384, 439-445 [2003] (with I.J. Rao and J.D. Humphrey).
263. Shear waves in a class of nonlinear viscoelastic solids, *Quarterly journal of Mechanics and Applied Mathematics*, **Vol. 56**, 311-326, part 2 [2003] (with G. Saccomandi).
264. Some issues in constitutive modeling, *Communications in Non-linear Science and Numerical Simulation*, [2003] (with L. Tao).
265. Review of the uses and modeling of bitumen from ancient to modern times, *Applied Mechanics Reviews*, **56**, 149-214 [2003] (with J. Murali Krishnan).
266. A constrained mixture model for arterial adaptations to a sustained step change in blood flow, *Biomechanical Modeling and Mechanobiology*, **2**, 109-126 [2003] (with J. Humphrey).
267. The natural viscosity of turbulence, *Journal of Turbulence*, **4**, 1-12 [2003] (with Y. Huang and F. Durst).
268. A thermomechanical framework for the transition of viscoelastic liquid to a viscoelastic solid, *Math Mech Solids*, **9**, 37-59 [2004] (with K. Kannan).
269. On thermomechanical restrictions of continua, *Proc. R. Soc. London A Mat.*, **460**, 631-651 [2004] (with A. R. Srinivasa).
270. A Thermodynamic framework for the constitutive modeling of asphalt concrete: Theory and Applications, *Journal of Materials in Civil Engineering*, **16**, 155-166 [2004] (with J. Murali Krishna).
271. Triaxial testing and stress relaxation of asphalt concrete, *Mechanics of Materials*, **36**, 849-864 [204], (with J. Murali Krishna).
272. On the modeling of quiescent crystallization of polymer melts, *Polymer Engineering Science*, **44**, 123-160 [2004] (with I.J. Rao).

273. Modeling of the response of elastic plastic materials treated as a mixture of hard and soft regions, *ZAMP*, **55**, 500-518 [2004] (with J. Kratochvil, J. Malek and A.R. Srinivasa).
274. A note on the flow of a Burgers' fluid in an orthogonal rheometer, *International Journal of Engineering Science*, **42**, 1973-1985[2004](with P. Ravindran and J. Muralikrishnan).
275. On the thermomechanics of materials that have multiple natural configurations, part 1: Viscoelasticity and Classical Plasticity, *ZAMP*, **55**, 861-893[2004],(with A.R.Srinivasa).
276. On the thermomechanics of materials that have multiple natural configurations, part2: Twinning and Solid to Solid phase transitions, *ZAMP*, **55**, 1074-1093[2004], (with A.R.Srinivasa).
277. A note on viscoelastic materials that can age, *International Journal of Non-Linear Mechanics*, **39**,1547-1554 [2004] (with A.S. Wineman).
278. Modeling the Pneumatic Subsystem of an S-cam Air Brake System, *ASME Journal of Dynamical Systems Measurements and Control*, **126**, 36-46[2004] (with S.C. Shankar and S. Darbha).
279. A Model incorporating some of the Mechanical and Biomechanical Factors Underlying Clot Formation with Dissolution in Flowing Blood, *Journal of Theoretical Medicine*, **5**,83-218[2004](with M. Anand and K. Rajagopal).
280. A shear-thinning viscoelastic fluid model for describing the flow of blood, *International Journal of Cardiovascular Medicine and Science*, **4**: 59-68 [2004] (with M.Anand).
281. A note on unsteady inhomogeneous extensions of a class of neo-Hookean elastic solids, *Mathematical Proceedings of the Royal Irish Academy*, **104A** (1): 47-57 [2004].
282. Couette flows of fluids with pressure dependent viscosity, *International Journal of Applied Mechanics and Engineering*, **9** (3): 573-585 [2004].
283. On the propagation of waves through porous solids, *International Journal of Non-Linear Mechanics*, **40**, 373-380 [2005], (with L. Tao).
284. Normal stress and Stress relaxation of for sand asphalt undergoing torsional flow, *Mechanics Research Communications*, **32**, 43-52[2005], (with L. R. Kasula, J. Muralikrishnan and D. Little).
285. Flows of fluids with pressure dependent viscosities between rotating parallel plates, in *New Trends in Mathematical Physics*, ed. P. Fergola et al., World Scientific, Singapore,[2005] (with K. Kannan).
286. On the role of the Eshelby Energy –Momentum Tensor in Materials with Multiple Natural Configurations, *Journal of Mathematics and Mechanics of Solids*, **10**, 3- 24[2005] (with A. R. Srinivasa).
287. A Continuum Model for the creep of single crystal nickel-base superalloys, *Acta Materialia*, **53**, 669-679[2005] (with S.C.Prasad, I.J. Rao).
288. A note on a correspondence principle in non-linear viscoelastic materials" in "Letters in Fracture in Micromechanics", **131**, no.4 [2005] (with A.R. Srinivasa).
289. On the bending of shape memory wires, *Mechanics of Advanced Materials and Structures*, **12**, 319-330 [2005] (with A.R. Srinivasa).
290. Heat-induced changes in the finite strain viscoelastic behavior of a collagenous tissue, *Journal of Biomechanical Engineering- Transactions of the ASME*, **127**, 580-586 [2005] (with S. Baek, J.D.Humphrey and P.B. Wells).
291. Simulation of fiber spinning including flow-induced crystallization, *Journal of Rheology*, **49**, 683-703 [2005] (with K. Kannan).
292. Simulation of the film blowing process for semicrystalline polymers, *Mechanics of Advanced Materials and Structures*, **12**, 129-146 [2005] (with I.J. Rao).
293. On steady flows of fluids with pressure and shear dependent viscosities, *Proceedings of The Royal Society A- Mathematical Physical And Engineering Sciences*, **461**, 651-670 [2005] (with M. Franta and J. Malek).
294. On fully developed flows of fluids with a pressure dependent viscosity in a pipe, *Application of Mathematics*, **50**, 341-353 [2005] (with M. Vasudevaiah).
295. Inflation, extension, torsion and shearing of an inhomogeneous compressible elastic right circularannular cylinder, *Mathematics and Mechanics of Solids*, **10** (6): 603-650 [2005] (with U. Saravanan).
296. A note on the flows of inhomogeneous fluids with shear-dependent viscosities, *Archives of Mechanics*, **57** (5): 417-428 [2005] (with M. Anand).
297. Simulation of flow induced crystallization in fiber spinning using the radial resolution approximation *Mechanics Of Advanced Materials And Structures*, **12** (6): 413-424 [2005] (with K. Kannan).
298. On the deformation of an elastoplastic body when placed between flat plates rotating about non-coincident axes, *International Journal Of Plasticity*, **21** (12): 2255-2276 2005 (with H. Pradeep and A.R. Srinivasa)

299. On the nature of constraints for continua undergoing dissipative processes, *Proceedings of The Royal Society A-Mathematical Physical And Engineering Sciences*, **461** (2061): 2785-2795 [2005] (with A.R. Srinivasa).
300. On the mechanical behavior of asphalt, *Mechanics Of Materials* **37** (11): 1085-1100 [2005] (with J.M. Krishnan).
301. Mathematical issues concerning the Navier-Stokes equations and some of its generalizations, *Handbook of Differential Equations, Evolutionary Equations, Volume 2* (ed. C.M. Dafermos and D. Feireisl), Elsevier, 2005, (with J. Malek).
302. A model for the formation and lysis of blood clots. *Pathophysiol Haemost Thromb* 2005; 34:109-120[2005] (M. Anand and K. Rajagopal).
303. A note on an unsteady flow of an Oldroyd-B fluid, *International Journal of Mathematics and Mathematical Sciences*, 3185-3194 [2005] (with C. Fetecau, K.Kannan).
304. Competition between radial expansion and thickening in the enlargement of an intracranial saccular aneurysm, *Journal of Elasticity*, **80**, 13-31[2005] (with S. Baek and J.D. Humphrey).
305. Modelling constant displacement rate experiments of asphalt concrete using a thermodynamic framework, *International Journal of Pavement Engineering*, **6** (4): 241-256 [2005] (with H. Pradeep, J. Muralikrishnan, D. N. Little and E. Masad).
306. On the modeling of inhomogeneous incompressible fluid-like bodies, *Mechanics of Materials* 38(3): 233-242[2006] (with J. Malek).
307. A thermodynamical framework incorporating the effect of thermal history on the solidification of molten polymers, In *Material substructures in complex bodies, from atomic structures to continuum*, [2006] (with K. Kannan).
308. Modeling Ziegler-Natta polymerization in high pressure reactors, In *Material substructures in complex bodies from atomic structures to continuum* [2006] (with A.Fasano, K.Kannan, A. Mancini).
309. A theoretical model of enlarging intracranial fusiform aneurysms, *Journal of Biomechanical Engineering*, **128**, 142-149[2006] (with S. Baek and J.D.Humphrey).
310. On implicit constitutive theories for fluids, *Journal of Fluid Mechanics*, **550**, 243-249, 2006.
311. A continuum model for the anisotropic creep of single crystal nickel-based superalloys, *Acta Materialia*, **54**, 1487-1500[2006] (with S. Prasad and I. J. Rao).
312. Flow of a fluid with pressure dependent viscosity due to a boundary that is being stretched, *Applied Mathematics and Computation* **173**, 50-68[2006] (with S. Prasad).
313. A thermodynamic framework for describing solidification of polymer melts, *Journal of Engineering Materials and Technology-Transactions of the ASME*, **128**, 55-63[2006] (with K.Kannan and I. J. Rao).
314. Mathematical properties of the equations governing the flow of fluids with pressure and shear rate dependent viscosities *Handbook of Mathematical Fluid Dynamics, Volume 4* (S. Friedlander, D.Serre (Eds.)) Elsevier [2006] (with J. Malek).
315. Rate-Type Model for Bituminous Mixtures and Its Application to Sand Asphalt, *ASCE Journal of Engineering Mechanics*, **132**, 632-640[2006], (with J. Murali Krishnan and D. N. Little).
316. Pressure Control Scheme for Air Brakes in Commercial Vehicles, *IEEE Proceedings on Intelligent Transportation Systems*, **153**(1): 21-32 [2006] (with C. L. Bowlin, S. C. Subramanian and S. Darbha).
317. Thermomechanical framework for the constitutive modeling of asphalt concrete, *International Journal of Geomechanics*, **6** (1): 36-45 [2006] (with J. Muralikrishnan, E. Masad and D. N. Little).
318. Homogenization and global responses of inhomogeneous spherical non-linear elastic shells, *Journal of Elasticity*, **82**, 193-214 [2006] (with Y.C. Chen and L.T.Wheeler).
319. On internal constraints in continuum mechanics, *Differential Equations and Non- Linear Mechanics* 2006, Article ID 18572, 12 pages, (2006) (with G. Saccomandi).
320. A viscoelastic fluid model for describing the mechanics of a coarse ligated plasma clot, *Theoretical and Computational Fluid Mechanics*, **20**, 239-250 (2006) (with M. Anand and K. Rajagopal).
321. On the Burgers fluids. *Mathematical Methods in Applied Sciences*, **29**, 2133-2147, (2006) (with R. Quintanilla).
322. On the deformation of the circumflex coronary artery during inflation tests at constant length, *Experimental Mechanics*, **46**, 647-656 (2006) (with Saravanan, S. Baek, and J. D. Humphrey).
323. Information flow and its relation to stability of the motion of vehicles in a rigid formation, *IEEE transactions on automatic control*, **51**, 1315-1319, (2006) (with S. Yadlapalli and S. Darbha).
324. A diagnostic system for air brakes in commercial vehicles, *IEEE transactions on intelligent transportation systems*, **7**, 360-376, (2006) (with S.C. Shankar and S. Darbha).
325. Pulsatile Flow of a Chemically-Reacting Non-Linear Fluid, *Computers and Mathematics with Applications*, **52**, 1131-1144 (2006) (with C. Bridges).
326. On the diffusion of fluids through solids undergoing large deformations, *Mathematics and Mechanics of solids*, **11**, 91-105 (2006) (with S. C. Prasad).

327. Unsteady exact solution for flows of fluids with pressure dependent viscosities, *Proceedings of Royal Irish Academy*, 106A, 115-130 [2006] (with G. Saccomandi).
328. A note on the flow induced by a constantly accelerating plate in an Oldroyd-B fluid, *Applied Mathematical Modeling*, **31**, 641-654 (2007) (with C. Fetecau and S.C. Prasad).
329. Incompressible rate type fluids with pressure and shear-rate dependent material moduli Nonlinear analysis-real world applications, **8**, 156-164 (2007) (with J. Malek)
330. Theoretical Modeling of Intracranial Aneurysms, In *Modeling of Biological Materials*(eds. F.Mollica, L. Preziosi and K.R. Rajagopal), Birkhauser, Boston, (2007) (with S. Baek and , J.D. Humphrey).
331. Theoretical modeling of cyclically loaded biodegradable cylinders, In *Modeling of Biological Materials*, (eds. F. Mollica, L. Preziosi and K.R. Rajagopal), Birkhauser, 2007 (with J. Soares and J. Moore).
332. The status of the K-BKZ model within the framework of materials with multiple natural configurations, *J. of Non-Newtonian Fluid Mechanics*, **141**, 67-72, (2007) (with I. J.Rao).
333. On Constitutive Equations for Anisotropic Nonlinearly Viscoelastic Solids, *Mathematics and Mechanics of Solids*,**12**, 131-147 (2007) (with J.Merodio).
334. Elasticity of Elasticity, *Zeitschrift fur Angewandte Mathematik und Physik*, **58**, 309-317 (2007).
335. On an Hierarchy of approximate models for flows of incompressible fluids through porous solids, *Mathematical Models and Methods in Applied Sciences*, **17**, 189-214 (2007).
336. Information flow and its relation to the stability of digitally controlled motion of vehicles in a rigid formation, Vol. 588 of *Lecture Notes in Economics and Mathematical Systems*, Springer (2007). (with Saikrishna Yadlapalli and Swaroop Darbha).
337. On the response of non-dissipative solids, *Proceedings of the Royal Society A-mathematical physical and engineering sciences* **463** : 357-367 (2007) (with A. R.Srinivasa).
338. A note on the flow through porous solids at high pressures, *Computers and Mathematics with Applications*, **53**, 260-275 (2007) (with J. Malek).
339. Navier-slip with Evolutionary Navier-Stokes like systems with pressure and shear-rate dependent viscosity, *Indiana Journal of Mathematics*, **56**, 51-85 (2007) (with Bulicek and J. Malek).
340. *Mechanics the well-spring of mathematics: Volume 1*, *Computers and Mathematics with Applications*, **53**,155 (2007) (with J. Malek).
341. On the dynamics of viscoelastic materials with pressure dependent viscosity, *International Journal of Engineering Science*, **45**, 41-54 (2007) (with G. Saccomandi).
342. Theory of small on large: Potential utility in computations of fluid-solid interactions in arteries, *Computer Methods in Applied Mechanics and Engineering*, **196**, 3070-3078 (2007) (with S. Baek, R. L. Gleason and J. D. Humphrey)
343. Characterization of the non-linear response of asphalt mixtures using a torsional rheometer, *Mechanics Research Communications*, **34**, 432-444 (2007) (with P. Ravindran and J. Muralikrishnan).
344. Towards an understanding of the mechanics underlying aortic dissection, *Biomechanics and modeling in Biomechanics*, **6**, 345-359 9(2007) (with K. Rajagopal and C. Bridges).
345. An experimental investigation into the influence of fillers on the development of normal stresses and stress relaxation in asphalt mixtures due to torsion, *Particulate Science and Technology*, **25**, 309-325 (2007) (with P. Ravindran, J.Muralikrishnan and D. N. Little).
346. *Mechanics the well-spring of mathematics: Volume 2*, *Computers and Mathematics with Applications*, **53**, 345 (2007) (with J. Malek).
347. On the shear and bending of a polymer beam, *International Journal of Plasticity*, **23**, 1618-1636 (2007) (with A. R. Srinivasa and A. S. Wineman).
348. Modeling materials with a stretching threshold, *Mathematical Models and Methods in Applied Sciences*, **17**, 1799-1847 (2007) (with A. Fasano, A. Farina and L. Fusi).
349. On a new interpretation of the classical Maxwell model, *Mechanics Research Communications*, **34**, 509-514 (2007) (with I. J. Rao)
350. A model for a relay valve used in an air brake system, *Nonlinear Analysis: Hybrid systems*, **1**, 420- 442 (2007) (with S. V. Natarajan, S. C. Subramaniam and S. Darbha).
351. The physical and chemical structure of asphalt: a brief history of their usage and availability, in *Reviews in geomechanics*, Vol. 3, Jindrich Necas Center for Mathematical Modeling; *Lecture Notes*, (2007) (with J. M. Krishnan)
352. One-Dimensional motion of a material with a strain threshold, *Le Matematiche*, **62**, 199-218 (2007) (with A. Farina, A. Fasano and L. Fusi).

353. A Model for the Kinetics of Thermal Damage of Biological Membranes, *Note di Matematica*, **27** (2007). (with L. Tao, P. B. Wells and J. D. Humphrey).
354. A note on the flow through porous solids at high pressures, *Computers and Mathematics with Applications*, **53**, 260-275 (2007) (with S. C. Subramaniam).
355. On some finite deformations of inhomogeneous compressible elastic solids, *Proceedings of the R Royal Irish Academy*, 107A, 43-72[2007](with U. Saravanan).
356. Dynamics of Materials with a deformability threshold, *Applied and Industrial Mathematics in Italy II, Series in Mathematics for the Advancement of Applied Sciences*, **75**, 327-338 [2007] (with A. Farina, A. Fasano and L. Fusi)
357. On the modeling of the viscoelastic response of embryonic tissues, *Mathematics and Mechanics of Solids*, **13**, 81-91 (2008) (with W. A. Malik, S. C. Prasad and L. Preziosi)
358. On the response of non-dissipative solids, *Communications in Nonlinear Science and Numerical Simulation*, **13**, 1089-1100 (2008) (with L. Tao)
359. A semi-inverse problem of flows of fluids with pressure dependent viscosities, *Inverse Problems in Science and Engineering*, **16**, 269-280 (2008).
360. Flow through porous media due to high pressure gradients, *Applied Mathematics and Computations*, **199**, 748-759 (2008) (with K. Kannan)
361. A thermodynamic framework for the modeling of crystallizable shape memory polymers, **46**, 325-351, *International Journal of Engineering Science* (2008). (with G. Barot and I. J. Rao).
362. Constitutive framework for biodegradable polymers for application to biodegradable stents, *ASAIO Journal*, **54**, 295-301 (2008) (with J. Soares and J. Moore).
363. A thermodynamic framework for a mixture of two liquids, *Nonlinear Analysis: Real World Applications*, **9**, 1649-1110 (2008) (with J. Malek).
364. On the thermodynamics of fluids with implicit constitutive relations, *ZAMP*, **59**, 715-729 (2008) (with A. R. Srinivasa).
365. A review of mathematical models for the flow of traffic and some recent results, *Nonlinear Analysis: Theory, methods and Applications*, **69**, 950-970 (2008) (with V. Tyagi and S. Darbha).
366. A thermomechanical model for modeling the compaction of asphalt mixes, *Mechanics of Materials*, **40**, 846-864 (2008) (with S. Koneru and E. Masad).
367. Thermodynamics of Hypoelasticity, *Zeitschrift fur Angewandte Mathematik und Physik*, **59**, 537-553 (2008) (with B. Bernstein).
368. On the development of fluid models of the differential type within a thermodynamic framework, *Mechanics Research Communications*, **35**, 483-489 (2008) (with A. R.).
369. A model for the formation, growth, and lysis of clots in quiescent plasma, A comparison between The effects of antithrombin III deficiency and protein C deficiency, *Journal of Theoretical Biology*, **253**, 725-738 (2008) (with M. Anand and K. Rajagopal).
370. Modeling of entropy producing processes, smart devices: Modeling of material systems, *American Institute of Physics*, 1029, 3-9(2008).
371. A Quasi-correspondence principle for Quasi-linear viscoelastic solids, **12**, 1-14 (2008) (with S. Wineman).
372. Flows of incompressible fluids subject to Navier's slip on the boundary **56**, 2128-2143 (2008) (with J. Hron, C. Le Roux and J. Malek).
373. Discretization of an unsteady flow through a porous solid modeled by Darcy's equations, *Mathematical Models and Methods in the Applied Sciences*, **18**, 2087-2123(2008) (with C. Bernardi and V. Girault).
374. On a class of non-dissipative materials that are not hyperelastic, *Proc. Roy. Soc. London, Series A*, **465**, 493-500(2008) (with A. R. Srinivasa).
375. On the modeling of entropy producing processes, *Electronic Transactions of Numerical Analysis*, **31**, 40-48(2008).
376. A parameter estimation scheme for a class of hybrid systems, *Non-Linear Analysis: Hybrid Systems*, **2**, 1113-1124 (2008).
377. Modeling sand-asphalt mixtures within a thermodynamic framework: theory and application to torsion experiments, *International Journal of Pavement Engineering*, **10**, 115-131(2008) (with P. Ravindran, J. Muralikrishnan and E. Masad).
378. On a class of dissipative materials that are not hyperelastic, *Proceedings of the Royal Society, London A* **465**, 493-500 (2009) (with A. R. Srinivasa).
379. On the Oberbeck-Boussinesq approximation for fluids with pressure dependent viscosities, *Non-Linear Analysis-Real World Applications*, **10**, 1139-1150 (2009) (with L. Vergori and G. Saccomandi).

380. A note on the applicability of recurrence theorems, *Communications in nonlinear science and Numerical analysis*, 14, 2587-2591 (2009) (with L. Tao).
381. Development of three dimensional constitutive theories based on lower dimensional data, *Applications of Mathematical*, 54, 147-176 (2009) (with S. Karra) .
382. A note on a reappraisal of the Kelvin-Voigt model, *Mechanics Research Communications*, 36, 232-235 (2009).
383. Coupled heat conduction and deformation in a composite cylinder, *Mechanics of Time-Dependent Materials*, 13, 121-147 (2009) (with S. Shah and A. Muliana).
384. A thermodynamic framework for the development of viscoelastic fluids without instantaneous elasticity, *Acta Mechanica*, 205, 105-119 (2009) (with S. Karra).
385. Unsteady motions of degrading or aging elastic solids, *International Journal of Non-Linear Analysis*, 44, 478-485 (2009) (with S. Darbha).
386. Degradation of an elastic cylinder due to an infusing fluid, *Journal of Composite Materials*, 11, 1225-1249 (2009) (with A. Muliana and S. C. Subramaniam).
387. Analysis of the flows of incompressible fluids with pressure dependent viscosity. *Czechoslovak Mathematics Journal*, 59, 503-529 (2009) (with M. Bulicek and J. Malek).
388. Response of nonlinearly viscoelastic solids, *Mathematics and Mechanics of Solids*, 14, 490-501 (2009) (with A. S. Wineman).
389. Mathematical analysis of unsteady flows of fluids with pressure, shear rate, and temperature dependent moduli, *SIAM Journal of Mathematical Analysis*, 41, 665-707 (2009) (with M. Bulicek, and J. Malek).
390. Stability of the Raleigh-Benard convection for a fluid of pressure and temperature dependent Viscosities, *Zeitschrift fur Mathematik und Physik*, 60, 739-755 (2009) (with L. Vergori and G. Saccomandi).
391. Modeling sand asphalt mixtures within a thermodynamic framework: theory and application to torsion experiment, *International Journal of Pavement Engineering*, 10, 115-131 (2009) (with P. Ravindran, J. M. Krishnan and E. Masad).
392. The mechanics and mathematics of the effect of pressure on the shear modulus of elastomers *Proceedings of the Royal Society, London A* 465, 3859-3874 (2009) (with G. Saccomandi).
393. Mathematical results concerning unsteady flows of chemically reacting incompressible fluids, *Partial Differential Equations and Fluid Mechanics* (ed. J. Robinson and J. Rodrigo), Cambridge University Press, (2009), (with M. Bulicek and J. Malek),
394. Mechanics of deformation induced degradation in poly (L-Lactic Acid) endovascular stents, *Proceedings of the summer bioengineering conference, parts A&B*, 13-14 (2009).
395. Mechanics, Mathematics and Materials, In Memoriam, A. J. M. Spencer, FRS, *International Journal of Engineering Science*, 49, 1055-056 [2009] (with A. P. S. Selvadurai and K. Soldatos).
396. Modelling of Deformation-Accelerated Breakdown of Polyactic Acid Biodegradable Stents, *Journal for Medical Devices, Proc. Summer Bioengineering Conference, Parts A and B*, 13-14 [2009] (with J. Soares and J. Moore).
397. A review of mathematical models for traffic flow, *International Journal of Advances in Engineering Science and Applied Mathematics*, 1, 53-68 (2009).
398. Deformation induced hydrolysis of a degradable polymeric cylindrical annulus, *Mechanics and Mechanobiology*, 9, 177-186 [2010] (with J. Soares and J. Moore).
399. A Note on plane strain and plane stress problems for a new class of elastic bodies, *Mechanics and Mathematics of Solids*, 15, 229-238 [2010] (with R. Bustamante).
400. On the vibrations of lumped parameter systems governed by differential algebraic systems, *Journal of the Franklin Institute*, 347, 87-101 [2010] (with K. Nakshatrala and S. Darbha).
401. Modeling of asphalt mixture laboratory and field compaction using a thermodynamics framework, *Journal of the Association of Asphalt Paving Technologists*, vol. 78, 2010 (with E. Masad, S. Koneru, A. Scarpas, and C. Kasbergen).
402. Application of viscoelastic clock models in biomechanics, *Acta Mechanica*, 213, 255-266 [2010] (with A. S. Wineman).
403. A systematic approximation for the equation governing convection diffusion in a porous medium, *Non-Linear Analysis-Real World Applications*, 11, 2366-2375 [2010] (with L. Vergori and G. Saccomandi).
404. A note on the flow of a fluid with pressure dependent viscosity in the annulus of two infinitely long co-axial cylinders, *Applied Mathematical Modeling*, 11, 3255-3263 [2010] (with S. Srinivasan).
405. A Gibbs potential based formulation for obtaining the response function for a class of viscoelastic materials, *Proc. Roy. Soc. London. Series A*, 467, 39-58 [2010] (with A. R. Srinivasa).

406. A generalized framework for studying the vibrations of lumped parameter systems, *Mechanics Research Communications*, **17**, 463-466 [2010].
407. On the modeling of the synovial fluid, *Advances in Tribology Volume 2010 (2010)*, Article ID104957, 12 pages, doi:10.1155/2010/104957 [2010] (with J. Hron, J. Malek and P. Pusteyovska).
408. Stress concentration due to an elliptic hole in a degrading linearized elastic solid, *International Journal of Applied Mechanics and Engineering* (with V. Kulvait and J. Malek).
409. Biodegradable Stents: Biomedical Modelling Challenges and Opportunities, *Cardiovascular Engineering and Technology*, **1**, 52-65[2010] (with J. Soares and J. Moore).
410. A generalized framework for studying the vibration of lumped parameter systems, *Mechanics Research Communications*, **37**, 463-466[2010].
411. Mechanics of Mixtures, In *Rheology of Complex Fluids* (eds. J. M. Krishnan, A. J. Deshpande, and P. B. Kumar) pp 67-86, Springer, New York-Dordrecht-Heidelberg- London (2010).
412. On the dynamics of an elastic-rigid material, *Advances in Mathematical Sciences and Applications* **20**, [2010]. (with A. Farina, A. Fasano, L. Fusi).
413. Generalizations of the Navier-Stokes fluid from a new perspective, In Press, *International Journal of Engineering Science*, **48**, 1907-1924 (2010) (with J. Malek and V. Prusa).
414. Compressible generalized Newtonian fluids, In Press, *Zeitschrift fur Angewandte Mathematik und Physik*, **61**, 1097-1110[2010] (with J. Malek).
415. On the modeling the flow of the synovial fluid: Unsteady flow of a shear thinning chemically- reacting fluid mixture, *Computers with Mathematics and Applications*, **60**, 2333-2349[2010] (with C. Bridges and S. Karra).
416. On a new class of models in elasticity, accepted for publication, *Journal of Mathematical and Computer Applications*, **15**, 506-528[2010].
417. Further remarks on simple flows of fluids with pressure dependent viscosities, *Non-Linear Analysis Real World Applications*, **12**, 394-402 [2010] (with V. Prusa and J. Malek).
418. Modeling the non-linear response of high temperature polyimides, *Non-linear Analysis: Real World Applications*, **12**, 394-402 [2011] (with S. Karra).
419. Couette flow with frictional heating in a fluid with temperature and pressure dependent viscosity, *International Journal of Heat and Mass Transfer*, **54**, 783-789 [2011] (with G. Saccomandi and L. Vergori).
420. Changes in the response of viscoelastic solids due to changes in their internal structure, *Acta Mechanica*, **217**, 297-316 (2011). (with A. Muliana).
421. Homogenization of a generalization of Brinkman's equation for the flow of a fluid with pressure Dependent viscosity through a rigid porous solid, *Zeitschrift fur Angewandte Mathematik und Mechanik*, 1-19 (2011).
422. Linear stability of Hagen-Poiseuille of a chemically reacting fluid, *Computers with Mathematics and Applications*, **61**, 460-469 (2011). (with G. Saccomandi and L. Vergori).