

LIST OF PUBLICATIONS

Jean-Baptiste Leblond

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Papers in scientific journals (Pub)

Remark: In the following list the papers marked with an asterisk (*) are available upon request; send me an e-mail at the address jbl@lmm.jussieu.fr and I will be happy to provide you with a pdf copy.

1. [Pub:GCLC80] J.P. GAUYACQ, F. COLLIER, J.B. LEBLOND, P. COTTIN, *Kinetic study of e-beam excited Ar – CO₂ mixtures*, **Journal of Chemical Physics**, **72**, 2974-2980 (1980).
2. [Pub:CLHC81] F. COLLIER, J.B. LEBLOND, F. HOFFBECK, P. COTTIN, *UV transient absorptions in high pressure argon excited by relativistic electrons*, **Journal of Chemical Physics**, **74**, 4372-4379 (1981).
3. [Pub:LCHC81] J.B. LEBLOND, F. COLLIER, F. HOFFBECK, P. COTTIN, *Kinetic study of high pressure Ar – H₂O mixtures excited by relativistic electrons*, **Journal of Chemical Physics**, **74**, 6242-6255 (1981).
4. [Pub:BJLMTS83] C. BOUZOU, C. JOUVET, J.B. LEBLOND, P. MILLIE, A. TRAMER, M. SULKES, *Vibrational redistribution in jet-cooled perylene. Intermediate coupling case*, **Chemical Physics Letters**, **97**, 161-166 (1983).
5. * [Pub:LD83a] J.B. LEBLOND, D. DUBOIS, *A general mathematical description of hydrogen diffusion in steels - I: Derivation of diffusion equations from Boltzmann-type transport equations*, **Acta Metallurgica**, **31**, 1459-1469 (1983).
6. * [Pub:LD83b] J.B. LEBLOND, D. DUBOIS, *A general mathematical description of hydrogen diffusion in steels - II: Numerical study of permeation and determination of trapping parameters*, **Acta Metallurgica**, **31**, 1471-1478 (1983).
7. * [Pub:LD84] J.B. LEBLOND, J. DEVAUX, *A new kinetic model for anisothermal metallurgical transformations in steels including effect of austenite grain size*, **Acta Metallurgica**, **32**, 137-146 (1984).
8. * [Pub:AL85] M. AMESTOY, J.B. LEBLOND, *Sur le critère donnant la direction de propagation des fissures dans la théorie de Griffith*, **Comptes-Rendus de l'Académie des Sciences, Série II**, **301**, 969-972 (1985).

9. * [Pub:LA85] J.B. LEBLOND, M. AMESTOY, *Sur l'universalité de la relation liant les facteurs d'intensité de contrainte d'une fissure juste avant et juste après un changement de direction*, **Comptes-Rendus de l'Académie des Sciences, Série II**, **300**, 643-646 (1985).
10. [Pub:LMDD85] J.B. LEBLOND, G. MOTTET, J. DEVAUX, J.C. DEVAUX, *Mathematical models of anisothermal transformations in steels, and predicted plastic behaviour*, **Materials Science and Technology**, **1**, 815-822 (1985).
11. * [Pub:ABL86] M. AMESTOY, H.D. BUI, J.B. LEBLOND, *Facteurs d'intensité de contrainte à l'extrémité d'une fissure branchée*, **Comptes-Rendus de l'Académie des Sciences, Série II**, **303**, 985-988 (1986).
12. * [Pub:L86] J.B. LEBLOND, *Equations intégrales régularisées pour un corps bidimensionnel contenant une fissure de forme quelconque*, **Comptes-Rendus de l'Académie des Sciences, Série II**, **303**, 1521-1524 (1986).
13. * [Pub:LMD86a] J.B. LEBLOND, G. MOTTET, J.C. DEVAUX, *A theoretical and numerical approach to the plastic behaviour of steels during phase transformations - I: Derivation of general relations*, **Journal of the Mechanics and Physics of Solids**, **34**, 395-409 (1986).
14. * [Pub:LMD86b] J.B. LEBLOND, G. MOTTET, J.C. DEVAUX, *A theoretical and numerical approach to the plastic behaviour of steels during phase transformations - II: Study of classical plasticity for ideal-plastic phases*, **Journal of the Mechanics and Physics of Solids**, **34**, 411-432 (1986).
15. * [Pub:L87] J.B. LEBLOND, *Uniqueness and continuity theorems for a system of nonlinear partial differential equations*, **Journal of Nonlinear Analysis: Theory, Methods and Applications**, **11**, 63-69 (1987).
16. * [Pub:LNNT87] J.B. LEBLOND, D. NEJEM, D. DUBOIS, S. TALBOT-BESNARD, *Experimental and numerical study of diffusion and trapping of hydrogen in plastically deformed A 508 Cl. 3 steel at room temperature*, **Acta Metallurgica**, **35**, 1703-1714 (1987).
17. * [Pub:LDD89] J.B. LEBLOND, J. DEVAUX, J.C. DEVAUX, *Mathematical modelling of transformation plasticity in steels - I: Case of ideal-plastic phases*, **International Journal of Plasticity**, **5**, 551-572 (1989).
18. * [Pub:L89a] J.B. LEBLOND, *Mathematical modelling of transformation plasticity in steels - II: Coupling with strain hardening phenomena*, **International Journal of Plasticity**, **5**, 573-591 (1989).
19. * [Pub:L89b] J.B. LEBLOND, *Crack paths in plane situations - I: General form of the expansion of the stress intensity factors*, **International Journal of Solids and Structures**, **25**, 1311-1325 (1989).

20. * [Pub:L89c] J.B. LEBLOND, *Compatibilité des déformations thermiques en grandes transformations*, **Comptes-Rendus de l'Académie des Sciences, Série II**, **308**, 1661-1666 (1989).
21. * [Pub:PL90] G. PERRIN, J.B. LEBLOND, *Analytical study of a hollow sphere made of porous plastic material and subjected to hydrostatic tension - Application to some problems in ductile fracture of metals*, **International Journal of Plasticity**, **6**, 677-699 (1990).
22. * [Pub:AL92] M. AMESTOY, J.B. LEBLOND, *Crack paths in plane situations - II: Detailed form of the expansion of the stress intensity factors*, **International Journal of Solids and Structures**, **29**, 465-501 (1992).
23. [Pub:L92] J.B. LEBLOND, *A constitutive inequality for hyperelastic materials in finite strain*, **European Journal of Mechanics A/Solids**, **11**, 447-466 (1992).
24. * [Pub:LP92] J.B. LEBLOND, G. PERRIN, *Un modèle constitutif pour les solides viscoplastiques poreux*, **Comptes-Rendus de l'Académie des Sciences, Série II**, **314**, 987-993 (1992).
25. * [Pub:LT92] J.B. LEBLOND, O. TORLAI, *The stress field near the front of an arbitrarily shaped crack in a three-dimensional elastic body*, **Journal of Elasticity**, **29**, 97-131 (1992).
26. * [Pub:GLD93] M. GOLOGANU, J.B. LEBLOND, J. DEVAUX, *Approximate models for ductile metals containing non-spherical voids - Case of axisymmetric prolate ellipsoidal cavities*, **Journal of the Mechanics and Physics of Solids**, **41**, 1723-1754 (1993).
27. [Pub:PL93] G. PERRIN, J.B. LEBLOND, *Rudnicki and Rice's analysis of strain localization revisited*, **ASME Journal of Applied Mechanics**, **60**, 842-846 (1993).
28. [Pub:GLD94] M. GOLOGANU, J.B. LEBLOND, J. DEVAUX, *Approximate models for ductile metals containing non-spherical voids - Case of axisymmetric oblate ellipsoidal cavities*, **ASME Journal of Engineering Materials and Technology**, **116**, 290-297 (1994).
29. [Pub:LPD94] J.B. LEBLOND, G. PERRIN, J. DEVAUX, *Bifurcation effects in ductile metals with nonlocal damage*, **ASME Journal of Applied Mechanics**, **61**, 236-242 (1994).
30. * [Pub:LPS94] J.B. LEBLOND, G. PERRIN, P. SUQUET, *Exact results and approximate models for porous viscoplastic solids*, **International Journal of Plasticity**, **10**, 213-235 (1994).
31. [Pub:LPD95] J.B. LEBLOND, G. PERRIN, J. DEVAUX, *An improved Gurson-type model for hardenable ductile metals*, **European Journal of Mechanics A/Solids**, **14**, 499-527 (1995).

32. * [Pub:LMP96] J.B. LEBLOND, S.E. MOUCHRIF, G. PERRIN, *The tensile tunnel-crack with a slightly wavy front*, **International Journal of Solids and Structures**, **33**, 1995-2022 (1996).
33. * [Pub:LL98a] V. LAZARUS, J.B. LEBLOND, *Three-dimensional crack-face weight functions for the semi-infinite interface crack - I: Variation of the stress intensity factors due to some small perturbation of the front*, **Journal of the Mechanics and Physics of Solids**, **46**, 489-511 (1998).
34. * [Pub:LL98b] V. LAZARUS, J.B. LEBLOND, *Three-dimensional crack-face weight functions for the semi-infinite interface crack - II: Integro-differential equations on the weight functions and resolution*, **Journal of the Mechanics and Physics of Solids**, **46**, 513-536 (1998).
35. * [Pub:LL98c] V. LAZARUS, J.B. LEBLOND, *Crack paths under mixed mode (I+III) or (I+II+III) loadings*, **Comptes-Rendus de l'Académie des Sciences, Série IIb**, **326**, 171-177 (1998).
36. * [Pub:L98] J.B. LEBLOND, *Rupture fragile et rupture ductile*, **Comptes-Rendus de l'Académie des Sciences, Série IIb**, **326**, 243-250 (invited talk at the French Academy of Sciences) (1998).
37. * [Pub:FL99] J. FRELAT, J.B. LEBLOND, *Branchement d'une fissure initialement fermée en présence de frottement*, **Comptes-Rendus de l'Académie des Sciences, Série IIb**, **327**, 1251-1258 (1999).
38. * [Pub:L99] J.B. LEBLOND, *Crack paths in three-dimensional elastic solids. I: Two-term expansion of the stress intensity factors - Application to crack path stability in hydraulic fracturing*, **International Journal of Solids and Structures**, **36**, 79-103 (1999).
39. * [Pub:LLM99] J.B. LEBLOND, V. LAZARUS, S.E. MOUCHRIF, *Crack paths in three-dimensional elastic solids. II: Three-term expansion of the stress intensity factors - Applications and perspectives*, **International Journal of Solids and Structures**, **36**, 105-142 (1999).
40. * [Pub:LF99] J.B. LEBLOND, J. FRELAT, *Crack kinking from an initially closed interface crack*, **Comptes-Rendus de l'Académie des Sciences, Série IIb**, **327**, 1311-1318 (1999).
41. * [Pub:LL99a] J.B. LEBLOND, D. LEGUILLON, *Asymptotic behavior of stress intensity factors near an angular point of a crack front*, **European Journal of Mechanics A/Solids**, **18**, 135-145 (1999).
42. * [Pub:LL99b] J.B. LEBLOND, D. LEGUILLON, *The stress intensity factors near an angular point on the front of an interface crack*, **European Journal of Mechanics A/Solids**, **18**, 837-857 (1999).

43. * [Pub:LM99] J.B. LEBLOND, P. MOURO, *Crack propagation from a preexisting flaw at a notch root*, **Comptes-Rendus de l'Académie des Sciences, Série I Ib**, **327**, 581-587 (1999).
44. * [Pub:LP99] J.B. LEBLOND, G. PERRIN, *A self-consistent approach to coalescence of cavities in inhomogeneously voided ductile solids*, **Journal of the Mechanics and Physics of Solids**, **47**, 1823-1841 (1999).
45. * [Pub:L00] J.B. LEBLOND, *Basic results for elastic fracture mechanics with frictionless contact between the crack lips*, **European Journal of Mechanics A/Solids**, **19**, 633-647 (2000).
46. * [Pub:LF00] J.B. LEBLOND, J. FRELAT, *Crack kinking from an initially closed crack*, **International Journal of Solids and Structures**, **37**, 1595-1614 (2000).
47. * [Pub:LM00a] J.B. LEBLOND, P. MOURO, *Crack propagation from a pre-existing flaw at a notch root - I: Introduction and general form of the stress intensity factors at the initial crack tip*, **International Journal of Fracture**, **104**, 211-224 (2000).
48. * [Pub:LM00b] J.B. LEBLOND, P. MOURO, *Crack propagation from a pre-existing flaw at a notch root - II: Detailed form of the stress intensity factors at the initial crack tip and conclusion*, **International Journal of Fracture**, **104**, 225-239 (2000).
49. * [Pub:LR00] J.B. LEBLOND, G. ROY, *A model for dynamic ductile behavior applicable for arbitrary triaxialities*, **Comptes-Rendus de l'Académie des Sciences, Série I Ib**, **328**, 381-386 (2000).
50. * [Pub:PL00] G. PERRIN, J.B. LEBLOND, *Accelerated void growth in porous ductile solids containing two populations of cavities*, **International Journal of Plasticity**, **16**, 91-120 (2000).
51. * [Pub:GLPD01] M. GOLOGANU, J.B. LEBLOND, G. PERRIN, J. DEVAUX, *Theoretical models for void coalescence in porous ductile solids - I: Coalescence "in layers"*, **International Journal of Solids and Structures**, **38**, 5581-5594 (2001).
52. * [Pub:GLD01] M. GOLOGANU, J.B. LEBLOND, J. DEVAUX, *Theoretical models for void coalescence in porous ductile solids - II: Coalescence "in columns"*, **International Journal of Solids and Structures**, **38**, 5595-5604 (2001).
53. * [Pub:LLM01a] V. LAZARUS, J.B. LEBLOND, S.E. MOUCHRIF, *Crack front rotation and segmentation in mixed mode I+III or I+II+III - Part I: Calculation of stress intensity factors*, **Journal of the Mechanics and Physics of Solids**, **49**, 1399-1420 (2001).
54. * [Pub:LLM01b] V. LAZARUS, J.B. LEBLOND, S.E. MOUCHRIF, *Crack front rotation and segmentation in mixed mode I+III or I+II+III - Part II: Comparison with experiments*, **Journal of the Mechanics and Physics of Solids**, **49**, 1421-1443 (2001).

55. * [Pub:LF01] J.B. LEBLOND, J. FRELAT, *Crack kinking from an interface crack with initial contact between the crack lips*, **European Journal of Mechanics A/Solids**, **20**, 937-951 (2001).
56. * [Pub:LL02a] V. LAZARUS, J.B. LEBLOND, *In-plane perturbation of the tunnel-crack under shear loading. I: Bifurcation and stability of the straight configuration of the front*, **International Journal of Solids and Structures**, **39**, 4421-4436 (2002).
57. * [Pub:LL02b] V. LAZARUS, J.B. LEBLOND, *In-plane perturbation of the tunnel-crack under shear loading. II: Determination of the fundamental kernel*, **International Journal of Solids and Structures**, **39**, 4437-4455 (2002).
58. * [Pub:LL02c] V. LAZARUS, J.B. LEBLOND, *Crack front stability for a tunnel-crack propagating along its plane in mode 2+3*, **Comptes-Rendus Mécanique**, **330**, 437-443 (2002).
59. * [Pub:VBL03] Y. VINCENT, J.M. BERGHEAU, J.B. LEBLOND, *Viscoplastic behavior of steels during phase transformations*, **Comptes-Rendus Mécanique**, **331**, 587-594 (2003).
60. [Pub:BL04] P.B. BADEL, J.B. LEBLOND, *A note on integration schemes for the microplane model of the mechanical behavior of concrete*, **Communications in Numerical Methods in Engineering**, **20**, 75-81 (2004).
61. * [Pub:BVLJ04] J.M. BERGHEAU, Y. VINCENT, J.B. LEBLOND, J.F. JULLIEN, *Viscoplastic behavior of steels during welding*, **Science and Technology of Welding and Joining**, **9**, 323-330 (2004).
62. [Pub:FBS04] F. FAURE, J.M. BERGHEAU, J.B. LEBLOND, B. SOULOUMIAC, *New methods for numerical simulation of welding of large thin structures*, **Revue Européenne des Eléments Finis**, **13**, 289-311 (2004).
63. * [Pub:LF04] J.B. LEBLOND, J. FRELAT, *Crack kinking from an initially closed, ordinary or interface crack, in the presence of friction*, **Engineering Fracture Mechanics**, **71**, 289-307 (2004).
64. * [Pub:SL04a] K. SIRUGUET, J.B. LEBLOND, *Effect of void locking by inclusions upon the plastic behavior of porous ductile solids - I: Theoretical modelling and numerical study of void growth*, **International Journal of Plasticity**, **20**, 225-254 (2004).
65. * [Pub:SL04b] K. SIRUGUET, J.B. LEBLOND, *Effect of void locking by inclusions upon the plastic behavior of porous ductile solids - II: Theoretical modelling and numerical study of void coalescence*, **International Journal of Plasticity**, **20**, 255-268 (2004).
66. * [Pub:FL05a] L. FLANDI, J.B. LEBLOND, *A new model for porous viscoplastic solids incorporating void shape effects - I: Theory*, **European Journal of Mechanics A/Solids**, **24**, 537-551 (2005).

67. * [Pub:FL05b] L. FLANDI, J.B. LEBLOND, *A new model for porous viscoplastic solids incorporating void shape effects - II: Numerical validation*, **European Journal of Mechanics A/Solids**, **24**, 552-571 (2005).
68. * [Pub:FL05c] L. FLANDI, J.B. LEBLOND, *Theoretical modelling and numerical study of coalescence of cavities in porous ductile viscoplastic solids*, **Comptes-Rendus Mécanique**, **333**, 542-549 (2005).
69. * [Pub:FHL05] P. FLAUDER, D. HUIN, J.B. LEBLOND, *Numerical simulation of internal oxidation of steels during annealing treatments*, **Oxidation of Metals**, **64**, 131-167 (2005).
70. * [Pub:L05] J.B. LEBLOND, *Mathematical results for a model of diffusion and precipitation of chemical elements in solid matrices*, **Journal of Nonlinear Analysis Series B : Real World Applications**, **6**, 297-322 (2005).
71. * [Pub:FLL06a] E. FAVIER, V. LAZARUS, J.B. LEBLOND, *Coplanar propagation paths of 3D cracks in infinite bodies loaded in shear*, **International Journal of Solids and Structures**, **43**, 2091-2109 (2006).
72. * [Pub:FLL06b] E. FAVIER, V. LAZARUS, J.B. LEBLOND, *Statistics of the deformation of the front of a tunnel-crack propagating in some inhomogeneous medium*, **Journal of the Mechanics and Physics of Solids**, **54**, 1449-1478 (2006).
73. * [Pub:BGL07] P. BADEL, V. GODARD, J.B. LEBLOND, *Application of some anisotropic damage model to the prediction of the failure of some complex industrial concrete structure*, **International Journal of Solids and Structures**, **44**, 5848-5874 (2007).
74. [Pub:DVBLB07] Y.G. DUAN, Y. VINCENT, F. BOITOUT, J.B. LEBLOND, J.M. BERGHEAU, *Prediction of welding residual distortions of large structures using a local/global approach*, **Journal of Mechanical Science and Technology**, **21**, 1338-1343 (2007).
75. * [Pub:ELP07] K. ENAKOUTSA, J.B. LEBLOND, G. PERRIN, *Numerical implementation and assessment of a phenomenological nonlocal model of ductile rupture*, **Computer Methods in Applied Mechanics and Engineering**, **196**, 1946-1957 (2007).
76. * [Pub:LG08] J.B. LEBLOND, M. GOLOGANU, *External estimate of the yield surface of an arbitrary ellipsoid containing a confocal void*, **Comptes-Rendus Mécanique**, **336**, 813-819 (2008).
77. * [Pub:LM08] J.B. LEBLOND, G. MOTTET, *A theoretical approach of strain localization within thin planar bands in porous ductile materials*, **Comptes-Rendus Mécanique**, **336**, 176-189 (2008).
78. * [Pub:PLL08] N. PINDRA, V. LAZARUS, J.B. LEBLOND, *The deformation of the front of a 3D interface crack propagating quasistatically in a medium with random*

- fracture properties*, **Journal of the Mechanics and Physics of Solids**, **56**, 1269-1295 (2008).
79. * [Pub:BGL09] J.B. BRUNAC, O. GERARDIN, J.B. LEBLOND, *On the heuristic extension of Haigh's diagram for the fatigue of elastomers to arbitrary loadings*, **International Journal of Fatigue**, **31**, 859-867 (2009).
 80. * [Pub:EL09] K. ENAKOUTSA, J.B. LEBLOND, *Numerical implementation and assessment of the GLPD micromorphic model of ductile rupture*, **European Journal of Mechanics A/Solids**, **28**, 445-460 (2009).
 81. * [Pub:FBL09] E. FEULVARCH, J.M. BERGHEAU, J.B. LEBLOND, *An implicit finite element algorithm for the simulation of diffusion with phase changes in solids*, **International Journal for Numerical Methods in Engineering**, **78**, 1492-1512 (2009).
 82. * [Pub:BL10] A. BENZERGA, J.B. LEBLOND, *Ductile fracture by void growth to coalescence*, **Advances in Applied Mechanics**, **44**, 169-305 (2010).
 83. * [Pub:BHL10] J.B. BRUNAC, D. HUIN, J.B. LEBLOND, *Numerical implementation and application of an extended model for diffusion and precipitation of chemical elements in metallic matrices*, **Oxidation of Metals**, **73**, 565-589 (2010).
 84. * [Pub:HLBF10] T. HEUZE, J.B. LEBLOND, J.M. BERGHEAU, E. FEULVARCH, *A finite element for laminar flow of incompressible fluids with inertia effects and thermomechanical coupling*, **European Journal of Computational Mechanics**, **19**, 293-304 (2010).
 85. * [Pub:LL10a] L. LEGRAND, J.B. LEBLOND, *Evolution of the shape of the fronts of a pair of semi-infinite cracks during their coplanar coalescence*, **Zeitschrift für Angewandte Mathematik und Mechanik**, **90**, 821-836 (2010).
 86. * [Pub:PLL10a] N. PINDRA, V. LAZARUS, J.B. LEBLOND, *Geometrical disorder of the fronts of a tunnel-crack propagating in shear in some heterogeneous medium*, **Journal of the Mechanics and Physics of Solids**, **58**, 281-299 (2010).
 87. * [Pub:PLL10b] N. PINDRA, V. LAZARUS, J.B. LEBLOND, *In-plane perturbation of a system of two coplanar slit-cracks - I: Case of arbitrarily spaced crack fronts*, **International Journal of Solids and Structures**, **47**, 3489-3503 (2010).
 88. * [Pub:LL10b] L. LEGRAND, J.B. LEBLOND, *In-plane perturbation of a system of two coplanar slit-cracks - II: Case of close inner crack fronts or distant outer ones*, **International Journal of Solids and Structures**, **47**, 3504-3512 (2010).
 89. * [Pub:L11] J.B. LEBLOND, *A note on a nonlinear variant of Wagner's model of internal oxidation*, **Oxidation of Metals**, **75**, 93-101 (2011).
 90. * [Pub:LKL11] J.B. LEBLOND, A. KARMA, V. LAZARUS, *Theoretical analysis of crack front instability in mode I+III*, **Journal of the Mechanics and Physics of Solids**, **59**, 1872-1887 (2011).

91. * [Pub:LPLFLV11] L. LEGRAND, S. PATINET, J.B. LEBLOND, J. FRELAT, V. LAZARUS, D. VANDEMBROUCQ, *Coplanar perturbation of a crack lying on the mid-plane of a plate*, **International Journal of Fracture**, **170**, 67-82 (2011).
92. * [Pub:LPFL12] J.B. LEBLOND, S. PATINET, J. FRELAT, V. LAZARUS, *Second-order coplanar perturbation of a semi-infinite crack in an infinite body*, **Engineering Fracture Mechanics**, **90**, 129-142 (2012).
93. * [Pub:ML12a] K. MADOU, J.B. LEBLOND, *A Gurson-type criterion for porous ductile solids containing arbitrary ellipsoidal voids - I: Limit-analysis of some representative cell*, **Journal of the Mechanics and Physics of Solids**, **60**, 1020-1036 (2012).
94. * [Pub:ML12b] K. MADOU, J.B. LEBLOND, *A Gurson-type criterion for porous ductile solids containing arbitrary ellipsoidal voids - II: Determination of yield criterion parameters*, **Journal of the Mechanics and Physics of Solids**, **60**, 1037-1058 (2012).
95. * [Pub:TLP12] C. TEKOGU, J.B. LEBLOND, T. PARDOEN, *A criterion for the onset of void coalescence under combined tension and shear*, **Journal of the Mechanics and Physics of Solids**, **60**, 1363-1381 (2012).
96. * [Pub:BL13] A. BENZERGA, J.B. LEBLOND, *Effective yield criterion accounting for microvoid coalescence*, **ASME Journal of Applied Mechanics**, **81**, 031009-1 to 7 (2013).
97. * [Pub:LEB13] J.B. LEBLOND, H.A. EL-SAYED, J.M. BERGHEAU, *On the incorporation of surface tension in finite element calculations*, **Comptes-Rendus Mécanique**, **341**, 770-775 (2013).
98. * [Pub:LPH13] J.B. LEBLOND, M. PIGNOL, D. HUIN, *Predicting the transition from internal to external oxidation of alloys using an extended Wagner model*, **Comptes-Rendus Mécanique**, **341**, 314-322 (2013).
99. * [Pub:ML13] K. MADOU, J.B. LEBLOND, *Numerical studies of porous ductile materials containing arbitrary ellipsoidal voids - I: Yield surfaces of representative cells*, **European Journal of Mechanics A/Solids**, **42**, 480-489 (2013).
100. * [Pub:MLM13] K. MADOU, J.B. LEBLOND, L. MORIN, *Numerical studies of porous ductile materials containing arbitrary ellipsoidal voids - II: Evolution of the length and orientation of the void axes*, **European Journal of Mechanics A/Solids**, **42**, 490-507 (2013).
101. * [Pub:VLP13] M. VASOYA, J.B. LEBLOND, L. PONSON, *A geometrically non-linear analysis of coplanar crack propagation in some heterogeneous medium*, **International Journal of Solids and Structures**, **50**, 371-378 (2013).
102. * [Pub:BLP14] J.M. BERGHEAU, J.B. LEBLOND, G. PERRIN, *A new numerical implementation of a second-gradient model for plastic porous solids, with an application to the simulation of ductile rupture tests*, **Computer Methods in Applied Mechanics and Engineering**, **268**, 105-125 (2014).

103. * [Pub:HLB14] T. HEUZE, J.B. LEBLOND, J.M. BERGHEAU, *Benchmark tests based on the Couette viscosimeter - I: Laminar flow of incompressible fluids with inertia effects and thermomechanical coupling*, submitted to **Computers and Mathematics with Applications** (2014).
104. * [Pub:HELB14] T. HEUZE, H.A. EL-SAYED, J.B. LEBLOND, J.M. BERGHEAU, *Benchmark tests based on the Couette viscosimeter - II: Thermo-elasto-plastic behaviour in small and large strains*, submitted to **Computers and Mathematics with Applications** (2014).
105. * [Pub:JLBP14] A. JARDIN, J.B. LEBLOND, D. BERGHEZAN, M. PORTIGLIATTI, *Theoretical modelling and experimental study of the fatigue of elastomers under cyclic loadings of variable amplitude*, submitted to **Comptes-Rendus Mécanique** (2014).
106. * [Pub:LF14] J.B. LEBLOND, J. FRELAT, *Development of fracture facets from a crack loaded in mode I+III: solution and application of a model 2D problem*, **Journal of the Mechanics and Physics of Solids**, **64**, 133-153 (2014).
107. * [Pub:LL14] J.B. LEBLOND, V. LAZARUS, *On the strong influence of imperfections upon the quick deviation of a mode I+III crack from coplanarity*, submitted to **Journal of Mechanics of Materials and Structures** (special issue in the honor of H.D. Bui) (2014).
108. [Pub:LM14] J.B. LEBLOND, L. MORIN, *Gurson's criterion and its successive approximations revisited*, **ASME Journal of Applied Mechanics**, **81**, 051012, doi:10.1115/1.4026112 (2014).
109. *[Pub:LMB14] L. MORIN, J.B. LEBLOND, A. BENZERGA, *Coalescence of voids by internal necking: theoretical estimates and numerical results*, submitted to **Journal of the Mechanics and Physics of Solids** (2014).
110. * [Pub:MMLK14] L. MORIN, K. MADOU, J.B. LEBLOND, D. KONDO, *A new technique for finite element limit-analysis of Hill materials, with an application to the assessment of criteria for anisotropic plastic porous solids*, **International Journal of Engineering Sciences**, **74**, 65-79 (2014).

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Books and chapters of books (Book)

1. [Book:GLPD97] M. GOLOGANU, J.B. LEBLOND, G. PERRIN, J. DEVAUX, *Recent extensions of Gurson's model for porous ductile metals*, in: **Continuum Micromechanics**, P. Suquet, ed., Springer-Verlag, pp. 61-130 (1997).
2. [Book:LPDBB97] J.B. LEBLOND, D. PONT, J. DEVAUX, D. BRU, J.M. BERGHEAU, *Metallurgical and mechanical consequences of phase transformations in numerical simulations of welding processes*, in: **Modeling of Welding, Hot Powder Forming and Casting**, L. Karlsson, ed., American Society for Metals, pp. 61-89 (1997).
3. [Book:L01] J.B. LEBLOND, *Mechanical behavior of steels during solid-solid phase transformations*, in: **Handbook of Materials Behavior**, J. Lemaître, ed., Academic Press, pp. 915-920 (2001).
4. [Book:L03] J.B. LEBLOND, **Mécanique de la rupture fragile et ductile**, series Etudes en Mécanique des Matériaux et des Structures, Hermès (2003).