

Publications of Prof. R. Balasubramaniam

Journal Publications:

1. On Stress Corrosion Cracking in Aluminium-Lithium Alloys
R.Balasubramaniam, D.J. Duquette and K. Rajan
Acta Metallurgica et Materialia, **39** (1991) 2597-2605.
2. Hydride Formation in an Al-Li-Cu Alloy
R.Balasubramaniam, D.J. Duquette and K. Rajan
Acta Metallurgica et Materialia, **39** (1991) 2607-2613.
3. Elastic Moduli of Binary BCC Solid Solutions of Group Vb Elements
R.Balasubramaniam
Journal of Nuclear Materials, **187** (1992) 180-182.
4. Solution Thermodynamics of Hydrogen in MmNi5 with Aluminium, Manganese and Tin Substitutions
R.Balasubramaniam, M.N. Mungole, K.N. Rai and K.P. Singh
Journal of Alloys and Compounds, **185** (1992) 259-271.
5. Oxidation Behaviour of Hard and Binder Phase Modified WC-10Co Cemented Carbides
S.K. Bhaumik, R. Balasubramaniam, G.S. Upadhyaya and M.L. Vaidya
Journal of Materials Science Letters, **11** (1992) 1457-1459.
6. Hydrogen Storage Properties of MmNi5-x Mn_x Systems using Indian Mischmetal
M.N. Mungole, K.N. Rai, R.Balasubramaniam and K.P. Singh
International Journal of Hydrogen Energy, **17** (1992) 607-611.
7. Hydrogen Storage Properties of the MmNiO_{0.6}SnO_{0.4} System
M.N.Mungole, R.Balasubramaniam, K.N.Rai and K.P.Singh
International Journal of Hydrogen Energy, **17** (1992) 603-606.
8. Elastic Moduli of Ti-V, V-Cr and Ti-Cr Alloys
R.Balasubramaniam
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9. Theoretical Analysis of Stress Corrosion Cracking in Al-Li Alloys
K.Narayanaswamy and R.Balasubramaniam
Transactions of the Indian Institute of Metals, **45** (1992) 253-255.
10. Hydriding Properties of MmNi5-xMx System with Aluminium, Manganese and Tin Substitutions
R.Balasubramaniam, M.N.Mungole and K.N. Rai
Journal of Alloys and Compounds, **196** (1993) 63-70.
11. Failure Analysis of a Stainless Steel Flexible Coupling
R.Balasubramaniam
Practical Metallography, **30** (1993) 248-258.
12. Overview Number 108: Accommodation Effects During Room Temperature Hydrogen Transformations in the Niobium-Hydrogen System
R.Balasubramaniam
Acta Metallurgica et Materialia, **41** (1993) 3341-3349.
13. Hydrogen Storage Properties of MmNi5-xMx (M=Al, Mn and Sn) Based on Indian Mischmetal
R.Balasubramaniam, M.N.Mungole and K.N.Rai
Bulletin of Electrochemistry, **9** (1993) 285-289.
14. Effect of Hydrogen on Ductility of ODS Copper
Govind, R.Balasubramaniam and G.S.Upadhyaya
Scripta Metallurgica et Materialia, **29** (1993) 1303-1308.
15. Elevated Temperature Deformation Behaviour of Alumina Dispersed P/M Copper Alloys
Govind, R.Balasubramaniam and G.S.Upadhyaya
Materials Physics and Chemistry, **36** (1994) 371-376.
16. Mechanism for Hydrogen Induced Ordering in Pd3Mn

- R.Balasubramaniam
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17. Failure Analysis of Stainless Steel Heat Exchanger Condenser Tubes
R.Balasubramaniam
Practical Metallography, **31** (1994) 33-43.
18. Mesh Configuration in the Finite Element Evaluation of Accommodation Energies During Solid State Transformations
Subhajyoti Sen, R.Balasubramaniam and Raju Sethuraman
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19. Hydrogen Embrittlement of Al-Al₂O₃ Composites
K. Gopinath, R. Balasubramaniam and V.S.S.R. Murthy
Zeitschrift fuer Metallkunde, **85** (1994) 880-886.
20. Overview Number 11: Hydrogen Storage Properties of Indian MmNi₅ With Aluminium, Manganese and Tin Substitutions
M.N.Mungole, R.Balasubramaniam, K.N.Rai and K.P.Singh
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21. Hysteresis in MmNi₅ System with Aluminium, Manganese and Tin Substitutions
M.N. Mungole, R.Balasubramaniam and K.N.Rai
International Journal of Hydrogen Energy, **20** (1995) 151-157.
22. Theoretical Analysis of Hysteresis During Hydrogen Transformations in the Vanadium-Hydrogen System
S. Kumar and R.Balasubramaniam
International Journal of Hydrogen Energy, **20** (1995) 211-220.
23. Effect of Hydrogen on the Stabilities of Ordered Structures in Pd₃Mn
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24. Finite Element Analysis of Elastic Accommodation Energies During Solid State Transformations
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25. Finite Element Evaluation of Accommodation Energies During Hydrogen Transformations in the Niobium-Hydrogen System:I Plane Stress Analysis
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27. Finite Element Evaluation of Elastic Strain Energies During Solid State Transformation: Coherent, Spherical Precipitate in Finite Matrix
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29. Role of Interfacial Curvature in the Hysteresis in Metal-Hydrogen Systems
R. Balasubramaniam
International Journal of Hydrogen Energy, **21** (1996) 119-128.
30. On the Role of Chromium in Minimizing Room Temperature Hydrogen Embrittlement in Iron Aluminides
R. Balasubramaniam
Scripta Materialia, **34** (1996) 127-133.
31. Characterization of Internal Oxidation and Permeability of Oxygen in Pd/Al Alloys Using Hydrogen Isotherms
H. Noh, T.B. Flanagan, R. Balasubramaniam and J.A. Eastman
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32. Role of Surface Passive Films in the Hydrogen Embrittlement of Iron Aluminides
Arvind Agarwal and R. Balasubramaniam

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33. Determination of Oxygen and Nitrogen Diffusivities in Ti-25Al and Ti-25Al-15Nb by Subscale Microhardness Profiling
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38. Determination of Hydrogen Diffusivity in Al-Li-Cu-Mg Alloys
C. Thakur and R. Balasubramaniam
Journal of Materials Science Letters, **15** (1996) 1397-1399.
39. Deciphering the Potentiodynamic Polarization Curves of Fe₃Al and Fe₃Al+Cr
S. Mukherjee and R. Balasubramaniam
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40. Positron Annihilation Lifetime Study of Hydrogen-Charged Al-Al₂O₃ Composites
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Arvind Agarwal and R. Balasubramaniam
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C. Thakur and R. Balasubramaniam
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46. Effect of Electrolyte Temperature on the Polarization Behaviour of Al-Li Alloys in NaOH Solution
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C. Thakur and R. Balasubramaniam
Acta Materialia, **45** (1997) 1323-1332.
48. Hydrogen Solubility in Pd/Al₂O₃ Composites Prepared by Internal Oxidation of Pd-Al Alloys
R. Balasubramaniam, H. Noh, T.B. Flanagan and Y. Sakamoto
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Arvind Agarwal and R. Balasubramaniam
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N.Hariprasad and R.Balasubramaniam
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56. Determination of Hydrogen Diffusivity in Austenitic Stainless Steels by Subscale Microhardness Profiling
P. Kumar and R. Balasubramaniam
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R. Balasubramaniam
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Aluminides with Mischi metal Addition
P. Banerjee and R. Balasubramaniam
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R.K. Sajikumar, R. Balasubramaniam and N.N. Kishore
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