

PUBLICATIONS AND PATENTS

1. **G. Duan**, W.A. Goddard, and W.L. Johnson, *Equation of state and pressure induced cavitation in metallic glasses*, in preparation (2007).
2. **G. Duan**, M.L. Lind, and W.L. Johnson, *Bulk metallic glass with high thermal stability*, in preparation (2007).
3. D.C. Hofmann, J.Y. Suh, A. Wiest, **G. Duan**, M.L. Lind, M.D. Demetriou, and W.L. Johnson, *Metallic glass matrix composites with benchmark toughness and tensile ductility*, under review (2007)
4. **G. Duan**, A. Wiest, M.L. Lind, A. Kahl, and W.L. Johnson, *Lightweight Ti-based bulk metallic glasses excluding late transition metals*, *Scripta Materialia*, under review (2007).
5. **G. Duan**, A. Wiest, M.L. Lind, J. Li, W.K. Rhim, and W.L. Johnson, *Bulk metallic glass with benchmark thermoplastic processability*, *Advanced Materials*, in press (2007).
6. **G. Duan**, K. De Blauwe, M.L. Lind, J.P. Shramm, and W.L. Johnson, *Compositional dependence of thermal, elastic, and mechanical properties in Cu-Zr-Ag bulk metallic glasses*, *Scripta Materialia*, in press (2007).

7. **G. Duan**, M.L. Lind, K. De Blauwe, A. Wiest, and W.L. Johnson, *Thermal and elastic properties of Cu-Zr-Be bulk metallic glass forming alloys*, ***Applied Physics Letters***, 90, 211901 (2007).
8. M.D. Demetriou, **G. Duan**, C. Veazey, K. De Blauwe and W.L. Johnson, *Amorphous Fe-based metal foams*, ***Scripta Materialia***, 57, 9 (2007).
9. **G. Duan**, M.L. Lind, M.D. Demetriou, W.L. Johnson, W.A. Goddard, T. Cagin, and K. Samwer, *Strong configurational dependence of elastic properties for a binary model metallic glass*, ***Applied Physics Letters***, 89, 151901 (2006).
10. M.D. Demetriou, J.S. Harmon, M. Tao, **G. Duan**, K. Samwer, and W.L. Johnson, *Cooperative shear model for the rheology of glass forming metallic liquids*, ***Physical Review Letters***, 97, 065502 (2006).
11. M.L. Lind, **G. Duan**, and W.L. Johnson, *Isoconfigurational elastic constants and liquid fragility of a bulk metallic glass forming alloy*, ***Physical Review Letters***, 97, 015501 (2006).
12. D.C. Hofmann, **G. Duan**, and W. L. Johnson, *TEM study of structural evolution in a copper mold cast $Cu_{46}Zr_{54}$ bulk metallic glass*, ***Scripta Materialia***, 54, 1117 (2006).
13. **G. Duan**, D.H. Xu, Q. Zhang, G.Y. Zhang, T. Cagin, W.L. Johnson and W.A. Goddard, *Molecular dynamics study of the binary $Cu_{46}Zr_{54}$ metallic glass motivated by experiments: Glass formation and atomic-level structure*, ***Physical Review B***, 71, 224208 (2005).
14. **G. Duan**, D.H. Xu, W.L. Johnson, *High copper content bulk glass formation in bimetallic Cu-Hf system*, ***Metallurgical and Materials Transactions A***, 36A, 455 (2005).

15. D.H. Xu, **G. Duan**, and W.L. Johnson, *Unusual glass-forming ability of bulk amorphous alloys based on ordinary metal copper*, **Physical Review Letters**, 92, 245504 (2004).
16. D.H. Xu, **G. Duan**, W.L. Johnson, and C. Garland, *Formation and properties of new Ni-based amorphous alloys with critical casting thickness up to 5 mm*, **Acta Materialia**, 52, 3493 (2004).
17. D.H. Xu, B. Lohwongwatana, **G. Duan**, W.L. Johnson, and C. Garland, *Bulk metallic glass formation in binary Cu-rich alloy series - $Cu_{100-x}Zr_x$ ($x=34,36,38.2,40$ at.%) and mechanical properties of bulk $Cu_{64}Zr_{36}$ glass*, **Acta Materialia**, 52, 2621 (2004).
18. **G. Duan**, W.L. Johnson, and A. Wiest, *Thermoplastically processable amorphous alloys*, Provisional patent filed (2006).
19. M. Demetriou, **G. Duan**, C. Veazey, and W.L. Johnson, *Amorphous Fe- and Co-based metallic foams and methods of producing the same*, Patent filed (2007).
20. **G. Duan**, A. Wiest, and W.L. Johnson, *Low density Be-bearing bulk glassy alloys excluding late transition metals*, Patent filed (2007).