

Partial Faculty Publications for the Calendar Year 2003.

Bales, Barney L.

- Benrraou, M., B.L. Bales and R. Zana, "Effect of the Nature of the Counterions on the Properties of Anionic Surfactants.1. Cmc, Ionization Degree at the cmc and Aggregation Number of Micelles of Sodium, Cesium, Tetramethylammonium, Tetraethylammonium, Tetrapropylammonium, and Tetrabutylammonium Dodecylsulfates," *J. Phys. Chem. B* 107:3432-13440, 2003.
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- Ranganathan, R., C. Vautier-Giongo and B.L. Bales, "Toward a Hydrodynamic Description of Bimolecular Collisions in Micelles." *J. Phys. Chem. B* 107:10312-10318, 2003.
- Vautier-Giongo, C. and B.L. Bales, "Estimate of the Ionization Degree of Ionic Micelles Based on Krafft Temperature Measurements," *J. Phys. Chem. B* 107:5398-5403, 2003.
- Riske, K. A., O. R. Nascimento, B. L. Bales and M. T. Lamy-Freund, "DMPG Gel-fluid Thermal Transition Monitored by a Phospholipid Spin Labeled at the Acyl Chain End," *Chem. Phys. Lipids* 124(1):69-80, 2003.

Cadavid, Ana Cristina

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- A.C. Cadavid, J.K. Lawrence, T.E. Berger and A.A. Ruzmaikin, "Photospheric Sources and Brightening of the Internetwork Chromosphere," *ApJ*, 1409, 2003.
- A.A. Ruzmaikin, J.K. Lawrence and A.C. Cadavid, "A Simple Model of Stratospheric Dynamics Including Solar Variability," *J. Climate*, 1593, 2003.

Chapman, Gary A.

- Chapman, G.A., Dobias, J.J., Preminger, D.G. and Walton, S.R., "On the Decay Rate of Sunspots," *Geophysics Res. Lett.* 30, doi: 10.1029/2002GLO16225, 2003.
- S.R. Walton, D.G. Preminger and G.A. Chapman, "A Statistical Analysis of the Characteristics of Sunspots and Faculae," *Solar Phys.* 213:301, 2003.
- S.R. Walton, D.G. Preminger and G.A. Chapman, "The Contribution of Faculae and Network to Long-Term Changes in the Total Solar Irradiance," *Astrophys. J.* 590:1088, 2003.
- M.J. Penn, W.D. Cao, S.R. Walton, G.A. Chapman and W. Livingston, "Weak Infrared Molecular Lines Reveal Rapid Outflow in Cool Magnetic Sunspot Penumbra Fibrils," *Astrophys. J.* 590:L119, 2003.
- M.J. Penn, S. Walton, G. Chapman, J. Ceja and W. Plick, "Temperature Dependence of Molecular Line Strengths and Fe I 1565 nm Zeeman Splitting in a Sunspot," *Solar Phys.* 213:55, 2003.
- M.J. Penn, W.D. Cao, S.R. Walton, G.A. Chapman and W. Livingston, "Imaging Spectropolarimetry of Ti 2231 nm in a Sunspot," *Solar Phys.* 215:87, 2003.
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Choudhary, DebiPrasad

- D. P. Choudhary, R. L. Moore, Filament Eruption Without Coronal Mass Ejection, *Geophys. Res. Lett.*, 30:2107, 2003.
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Jacobs, Donald J.

- D. J. Jacobs, S. Dallakyan, G. G. Wood and A. Heckathorne, "Network Rigidity at Finite Temperature: Relationships Between Thermodynamic Stability, the Nonadditivity of Entropy, and Cooperativity in Molecular Systems," *Physical Review E* 68:061109, 2003.

Kioussis, Nicholas G.

- C. S. Liu, N. Kioussis, S. Demos and H. Radousky, "Electron- or Hole-Assisted Reactions of H Defects in Hydrogen-Bonded KDP," *Phys. Rev. Lett.* 91:015505, 2003.
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- C. Verdozzi, Y. Luo, and N. Kioussis, "Disordered Kondo nanoclusters: Effect of Spacing," submitted to *Phys. Rev. B*, 2003.

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Peric, Miroslav

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Ranganathan, Radha

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Seki, Ryoichi

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Sheng, Donna N.

- L. Sheng, D. Y. Xing, H. Y. Teng, and D. N. Sheng "Random Walk Simulation of Magnetotransport in Magnetic Granular Systems," *Phys. Rev. B* 68:132401, 2003.
- D. N. Sheng, Leon Balents, and Ziqiang Wang, "Phase Diagram for Quantum Hall Bilayers at = 1," *Phys. Rev. Lett.* 91:116802, 2003.
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