Abstract Submitted
for the DAMOP06 Meeting of
The American Physical Society

**Resonant Double Photoionization of Li Studied with High Energy Resolution**[1] R. WEHLITZ, P.N. JURANIĆ, Synchrotron Radiation Center, Univ. of Wisconsin-Madison — Employing monochromatized synchrotron radiation of the new VLS-PGM beamline at the Synchrotron Radiation Center (SRC), we have measured with high energy resolution the relative photoionization cross-sections for the formation of $Li^+$ and $Li^{2+}$ ions between 148 and 161 eV photon energy. This energy region is characterized by double and triple excitations that lead to strong enhancements in the cross sections, particularly in the $Li^{2+}$ cross section. In an earlier study performed by Huang *et al.* [2] only a moderate energy resolution was used. Our high-resolution data exhibit a dramatic resonance structure in the double-to-single ionization ratio not seen before.

[1]The SRC is supported by NSF Grant No. DMR-0084402.
[2]M.-T. Huang, R. Wehlitz, Y. Azuma, L. Pibida, I.A. Sellin, J.W. Cooper, M. Koide, H. Ishijima, and T. Nagata, Phys. Rev. A **59**, 3397 (1999)

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Date submitted: 03 Mar 2006 Electronic form version 1.4