

Abstract Submitted
for the DAMOP19 Meeting of
The American Physical Society

Co-trapping Ca^+ and BH^+ LU QI, EVAN REED, NIKITA ZEM-LEVSKIY, JIMMY SHACKFORD, JYOTHI SARALADEVI, Department of Electrical and Computer Engineering, Duke University, Durham, North Carolina 27708, USA, KENNETH BROWN, Departments of Electrical and Computer Engineering, Chemistry and Physics, Duke University, Durham, North Carolina 27708, USA; — BH^+ is a candidate molecule for ion direct laser-cooling¹. We describe our apparatus for generating BH by ablation of a B target in a hydrogen jet. The BH molecules are then photoionized in a trap containing laser-cooled Ca^+ . Finally plans and progress on the spectroscopy of sympathetically cooled BH^+ are presented.

¹J. H. V. Nguyen, C. R. Viteri, E. G. Hohenstein, C. D. Sherrill, K. R. Brown, and B. Odom, **New Journal of Physics** 13, 063023 (2011)

Lu Qi
Duke University, Durham

Date submitted: 06 Feb 2019

Electronic form version 1.4