Trapped Ions and Laser Cooling II

Selected publications of the Ion Storage Group of the Time and Frequency Division, NIST, Boulder, Colorado

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PREFACE

This collection of papers represents the work on laser cooled, stored atomic ions by the Time and Frequency Division of the National Institute of Standards and Technology (formerly the National Bureau of Standards) from July, 1985 to September, 1988. It follows the collection of papers, contained in NBS Technical Note 1086, "Trapped Ions and Laser Cooling" (June 1985). Although the primary goal of this research has been the development of techniques necessary for achieving high resolution spectroscopy, we have also been able to investigate related areas of research.

Papers listed with the prefix A are not included here but can be obtained on request. We intend to update this publication periodically to include new work not contained here. We hope this collection of papers will be useful to our colleagues in this and related fields.

We gratefully acknowledge the important contributions of several colleagues, post-doctoral and guest researchers, and students, including Charles Manney, Earl Beaty, Larry Brewer, Sarah Gilbert, Hamid Hemmati, Randy Hulet, John Prestage, Ule Daniel, Frank Diedrich, Dan Larson, Gerd Leuchs, Shao Zhong Xing, and Franklin Ascarrunz. We also acknowledge the continued support of the U.S. Office of Naval Research and the U.S. Air Force Office of Scientific Research.

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