**Беломестных, Сергей Анатольевич.**

## Сверхпроводящий ускоряющий модуль на основе одномодового резонатора и его взаимодействие с интенсивным пучком в накопителе CESR : диссертация ... кандидата технических наук : 01.04.20. - Новосибирск, 1998. - 95 с. : ил.

## Оглавление диссертациикандидат технических наук Беломестных, Сергей Анатольевич

1. G. Н. Rees, "Radiation Excitation and Beam Distributions in Electron Storage Rings," Synchrotron Radiation and Free Electron Lasers, Proc. CERN Accelerator School, Chester, United Kingdom, April 1989, CERN 90-03, pp. 37-52.

2. M. Tigner, "CESR - An Electron Positron Colliding Beam Facility at Cornell," IEEE Trans. Nucl. Sci., NS-24, 1849 (1977).

3. B. W. Batterman, N. W. Ashcroft, "CHRTR CHESS: The New Synchrotron Radiation Facility at Cornell," Science, 206:10 (1979), pp. 157-161.

4. D. Rubin, "CESR Status and Plans," Proceedings of the 1995 Particle Accelerator Conference, Dallas, TX, May 1995, Vol. 1, pp. 481-485.

5. M. Billing, "Observation of a Longitudinal Coupled Bunch Instability with Trains of Bunches in CESR," presented at the 1997 Particle Accelerator Conference, Vancouver, Canada, May 1997.

6. A. Temnykh, D. Hartill, S. Belomestnykh, R. Kaplan, "The HOM Study of CESR RF Cavities Using Single Circulating Bunch," Report CBN 97-5, Cornell Laboratory of Nuclear Studies, Ithaca, NY (January 1997), presented at the 1997 Particle Accelerator Conference, Vancouver, Canada, May 1997.

7. С. А. Беломестных, неопубликовано.

8. D. Fromowitz, "Simulation of Multibunch Instabilities Based on the Fundamental Cavity Mode," Report CON 97-10, Cornell Laboratory of Nuclear Studies, Ithaca, NY (August 1997).

9. В. Г. Вещеревич, "Многорезонаторные ускоряющие структуры электрон-позитронного накопителя ВЭПП-4," Диссертация на соискание ученой степени кандидата технических наук, Новосибирск, 1983.

10. J. Kirchgessner, "Review of the Development of RF Cavities for High Currents," Proceedings of the 1995 Particle Accelerator Conference and International Conference on High-Energy Accelerators, Dallas, TX, May 1995, Vol. 3, pp. 1469-1473.

11. R. Boni, "HOM-Free Cavities," Proceedings of the Fifth European Particle Accelerator Conference, Barcelona, Spain, June 1996, Vol. 1, pp. 182-186.

12. K. Akai, "RF Issues for High Intensity Factories," Proceedings of the Fifth European Particle Accelerator Conference, Barcelona, Spain, June 1996, Vol. 1, pp. 205209.

13. S. Belomestnykh, "Coherent Synchrotron Frequency Shift due to the Fundamental Accelerating Cavity Mode in CESR," Report SRF 970314-01, Cornell Laboratory of Nuclear Studies, Ithaca, NY (March 1997).

14. H. Padamsee, P. Barnes, S. Belomestnykh, et al., "Beam Test of a Superconducting Cavity for the CESR Luminosity Upgrade," Proceedings of the 1995 Particle Accelerator Conference and International Conference on High-Energy Accelerators, Dallas, TX, May 1995, Vol. 3, pp. 1515-1517.

15. T. Furuya, et al., "Beam Test of a Superconducting Damped Cavity for KEKB," KEK Preprint 97-18, presented at the 1997 Particle Accelerator Conference, Vancouver, Canada, May 1997.

Глава 1

1.1 H. Padamsee, P. Barnes, S. Belomestnykh, et al., "Beam Test of a Superconducting Cavity for the CESR Luminosity Upgrade," Proceedings of the 1995 Particle Accelerator Conference and International Conference on High-Energy Accelerators, Dallas, TX, May 1995, Vol. 3, pp. 1515-1517.

1.2 H. Padamsee, et al., "Accelerating Cavity Development for the Cornell B-Factory, CESR-B," Conference Record of the 1991 IEEE Particle Accelerator Conference, San Francisco, CA, May 1991, Vol. 2, pp. 786-788.

1.3 H. Padamsee, et al., "Design Challenges for High Current Storage Rings," Particle Accelerators, 1992, Vol. 40, pp. 17-41.

1.4 M. Tigner, "CESR-B, Upgrade the CESR Facility to B-Factory Capability," Conference Record of the 1991 IEEE Particle Accelerator Conference, San Francisco, CA, May 1991, Vol. 1, pp. 132-134.

1.5 D. Rubin, "CESR Status and Plans," Proceedings of the 1995 Particle Accelerator Conference, Dallas, TX, May 1995, Vol. 1, pp. 481-485.

1.6 V. Veshcherevich, "B-Factory Cavity with Long Tubes and Tapers: Dipole Modes. Measurements on Full Scale Copper Model," Minutes of the SRF Meeting, July 9, 1992, Report SRFM 070992, Cornell Laboratory of Nuclear Studies, Ithaca, NY (1992).

1.7 S. Belomestnykh, "Cutoff Frequencies of Several SRF and CESR Beam Pipes," Report SRF 951220-18, Cornell Laboratory of Nuclear Studies, Ithaca, NY (1995).

1.8 T. Kageyama, "Grooved Beam Pipe for Damping Dipole Modes in RF Cavities," KEK B-Factory Workshop, KEK, Tsukuba, Japan, October 1990.

1.9 P. Kneisel and B. Lewis, "Advanced Surface Cleaning Methods - Three Years Experience with High Pressure Ultrapure Water Rinsing of Superconducting Cavities," Proceedings of the 7th Workshop on RF Superconductivity, Vol. 1, pp.311-327.

1.10 D. Moffat et al., "Preparation and Testing of a Superconducting Cavity for CESR-B," Proceedings of the 1993 Particle Accelerator Conference, Washington, D.C., May 1993, Vol. 2, pp. 763-765.

1.11 S. Belomestnykh, et al., "Superconducting RF System for the CESR Luminosity Upgrade: Design, Status, and Plans," Proceedings of the Fifth European Particle Accelerator Conference, Barcelona, Spain, June 1996, Vol. 3, pp. 2100-2102.

1.12 M. Pisharody, et al., "High Power Window Test on a MHz Planar Waveguide Window for the CESR Upgrade," Proceedings of the 1995 Particle Accelerator Conference and International Conference on High-Energy Accelerators, Dallas, TX, May 1995, Vol. 3, pp. 1720-1722.

1.13 E. Chojnacki, P. Barnes, S. Belomestnykh, et al., "Tests and Designs of HighPower Waveguide Vacuum Windows at Cornell," Report SRF 971210-07, Cornell

Laboratory of Nuclear Studies, Ithaca, NY (December 1997), presented at the Eighth Workshop on RF Superconductivity, Abano Terme, Italy, October 1997.

1.14 D. J. Liska, et al., "Design Features of a Seven-Cell, High Gradient Superconducting Cavity," Proceedings of the 1992 Linear Accelerator Conference, Ottawa, Canada, August 1992, Vol. 1, pp. 162-165.

1.15 J. Kirchgessner, "Thoughts on the Very High Value of dF/dP" Report SRF 940321-01, Cornell Laoratory of Nuclear Studies, Ithaca, NY (March 1994).

1.16 J. Kirchgessner and S. Belomestnykh, "On the Pressure Compensation for the B-cell Cavity in the MARK II Cryostat," Report SRF 970624-06, Cornell Laboratory of Nuclear Studies, Ithaca, NY (June 1997).

1.17 S. Belomestnykh, et al., "Comparison of the Predicted and Measured Loss Factor of the Superconducting Cavity Assembly for the CESR Upgrade," Proceedings of the 1995 Particle Accelerator Conference and International Conference on High-Energy Accelerators, Dallas, TX, May 1995, Vol. 5, pp. 3394-3396.

1.18 D. Moffat, et al., "Design and Fabrication of a Ferrite-lined HOM Load for CESR-B," Proceedings of the 1993 Particle Accelerator Conference, Washington, D.C., May 1993, Vol. 2, pp. 977-979.

1.19 W. Hartung, "The Interaction between a Beam and a Layer of Microwave-Absorbing Material," Ph. D. Dissertation, Cornell University (1996).