Foreword to the Special Issue on Ionizing-Radiation Effects in Microelectronics

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As integrated circuits find more and more uses, a need arises to assess their resistance to different forms of ionizing radiation, taking into account the character of modern technology and operating conditions. This task makes it necessary to further improve techniques and facilities for evaluating and predicting the radiation hardness of microelectronic circuits and systems.

This special issue represents a continuation of those published in 2004 and 2006 (*Mikroelektronika*, 2004, vol. 33, no. 2; 2006, vol. 35, no. 3).

The papers presented here are mostly concerned with the modeling and simulation of different ionizing-radiation effects on integrated-circuit parameters. They reflect the current trend toward wider use of computer and physical simulation of radiation effects to facilitate the design and testing of radiation-hard electronics.

As with the 2004 and 2006 special issues, Professor Tatevos Mamikonovich Agakhanyan, a long-time editor of *Mikroelektronika*, was the moving spirit behind this publication. It might be seen as a testimony to his accomplishments in radiation-hard electronics since the mid-1970s, when he started a special research group at the Moscow Engineering Physics Institute. This activity continues to yield important results and to influence related work at other institutions.