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Ali Beitollahi
Alireza Souri

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PREFACE

Nanotechnology as a multidisciplinary area, has been the focus of intense attention amongst scientists and technologists worldwide, in the last fifteen years. Utilization of materials with nanometer-sized structures has already shown noticeable advances in various physical, chemical, mechanical and biological properties of materials and promises solutions for tomorrow's products. In this respect, tailoring and controlling the nanostructure is considered to be a key issue in the development of advanced materials.The primary aim of this joint seminar was to provide a platform to bring together scientists and technologists from both countries to review their latest research activities and to initiate further scientific collaborations. The seminar was organized by Iran Ministry of Industries and Mines with the financial support of various organizations and agencies. The technical program comprised of 32 invited oral talks and more than 30 poster presentations. Further, 10 workshops were also organized in the last day of joint seminar as the followings;

1. Superhard materials- based nanostructured high melting point compounds.
2. Preparation of nanopowders produced by electric explosion of wires and by pulse laser.
3. Analytical application of ultrahigh vacuum scanning tunneling microscope.
4. Physics of fullerens.
5. Rare-Earth based hard magnetic materials: History of development and modern state.
6. Up-to-date state and innovations in computational drug design.
7. Immunochemical nano-systems for the targeted drug delivery. Towards a control over the blood-tissue barriers penetration.
8. Computational nanotechnology: concepts, approaches, results.
9. Magnetic isotope effect in biological nanostructures.
10. Moessbauer spectroscopy applications for nanosystem studies.

We thank all the authors who have contributed manuscripts to the proceedings. The proceedings has 32 invited papers presented in camera ready form spanning in various areas of nanotechnology such as; nanoparticle synthesis, computational nanotechnology, mechanical properties of nanostructured materials, carbon nanotubes, fullerene, nanocrystalline magnetic materials, size effect ,targeted drug delivery and nanomedicine. Furthermore, we would like to express our cordial thanks to Prof. R.Andrievski, Prof. E.F.Sheka and Prof. D.A.Kuznitsev for their invaluable help regarding this seminar. Finally we thank the various funding agencies listed in this proceedings, without whose support organizing a meeting of such a magnitude would not have been possible. The unflinching support provided by Iranian Nanotechnology Initiative (INI) was invaluable.

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