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- Signal transduction in eukaryotes
- Synthesis, characterization and manipulation of biomaterials
- Hybrid nanosized structures and nanocomposites
- Application of nanomaterials science research in the biomedical field for the development of new therapeutic and diagnosis tools
- Drug delivery
- New synthetic compounds with bioactive properties
- Drugs from natural sources
- Nanomaterials based-strategies for fighting antibiotic resistance and biofilms' development in medicine and ecology

BIOINTERFACE RESEARCH IN APPLIED CHEMISTRY

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TABLE OF CONTENTS

41	Dan Mihaiescu Alexandru Mihai Grumezescu Diana Elena Mogosanu Vanessa Traistaru Paul Catalin Balaure Alice Buteica	Hybrid inorganic/organic nanomaterial for controlled cephalosporins release
48	Selvakumar Dhanasingh Mallesha Jagannath Jambur Hiriyannaiah	Preparation, characterization and antimicrobial studies of chitosan/silica hybrid polymer
57	Rajashri S. Karmali Amruta Bartakke Vrinda P. Borker Koyar S. Rane	Bactericidal action of N doped ZnO in sunlight
64	Crina Saviuc Alexandru Mihai Grumezescu Alina Holban Carmen Chifiriuc Dan Mihaiescu Veronica Lazar	Hybrid nanostructured material for biomedical applications
72	Otilia Banu Coralia Bleotu Carmen Chifiriuc Bogdan Savu George Stanciu Cristina Antal Magdolna Alexandrescu Veronica Lazăr	Virulence factors of <i>Staphylococcus aureus</i> and <i>Pseudomonas aeruginosa</i> strains involved in the etiology of cardiovascular infections