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### **l-Carrageenan Manganese Oxide Bionanocomposites as a Promising Solution to Agricultural Challenges**

Spartak S Khutsishvili, Nino Gagelidze, Astghik S Tsokolakyan, Mkrtich A Yeranosyan, Eteri Tkesheliadze,

Vardan A Sargsyan, Darejan Dughashvili, Natela Dzebisashvili, Keso Aronia, Archil Benashvili,

Dali Dzanashvili, Irine Gurgenidze, Grigor Tatishvili, Paula Fraga-García

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Karen Simonyan, Astghik Tsokolakyan, Vahe Buniatyan, Artem Badasyan, Mkrtich Yeranosyan

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Nazeli Zaqaryan, Rita Khallouf, Arpi Manukyan, Vahe Atoyan, Astghik Tsokolakyan,

Mkrtich A Yeranosyan, Samvel G Chailyan, Kristine E Danielyan

Open Biotechnology Journal 2025 e18740707379038

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### **Effect of Pyrolysis Temperature on the Performance of Malt Biochar in Cement Mortars**

Roza Shainova, Nelli Muradyan, Avetik Arzumanyan, Marine Kalantaryan, Rafayel Sukiasyan,

Mkrtich Yeranosyan, Yeghvard Melikyan, Avetis Simonyan, David Laroze, Elisabetta Zendri,

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Kristine Edgar Danielyan, Nazeli Zaqaryan, Rita Khallouf, Maria Kojoyan, Kristine Tspnetsyan,

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Astghik S. Tsokolakyan, Vardan A. Hayrapetyan, Derenik K. Petrosyan, Melanie Welden, Heiko Iken,

Michael J. Schöning, Mkrtich A. Yeranosyan, Arshak Poghossian

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**Formation of zinc oxide composites of doxycycline with high antibacterial activity based on DC-magnetron deposition of ZnO nanoscale particles on the drug surface**

Ashkhen L. Zatikyan, Armen I. Martiryan, Emma R. Arakelova, Ashot M. Khachatryan, Anait A. Mirzoian, Susanna L. Grigoryan, Rafayel E. Muradyan, Hrachik R. Stepanyan, Stepan G. Grigoryan,

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Y. Melikyan, H. Gharagulyan, A. Vasil'ev, V. Hayrapetyan, M. Zhezhu, A. Simonyan, D.A. Ghazaryan, M.S. Torosyan, A. kharatyan, J. Michalicka, M. Yeranosyan

Colloids and Interface Science Communications 2024 100766-7

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**Effect of Silica Fume Concentration and Water-Cement Ratio on the Compressive Strength of Cement-Based Mortars**

Maria M. Badalyan, Nelli G. Muradyan, Roza S. Shainova, Avetik A. Arzumanyan, Marine A. Kalantaryan, Rafayel R. Sukiasyan, Mkrtich Yeranosyan, David Laroze, Yeghiazar V. Vardanyan, Manuk G. Barseghyan

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A. Vasil'ev, Y. Melikyan, M. Zhezhu, V. Hayrapetyan, M.S. Torosyan, D.A. Ghazaryan, M. Yeranosyan, H. Gharagulyan

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**Broadband THz metasurface bandpass filter/antireflection coating based on metalized Si cylindrical rings**

Karen Simonyan, Hermine Gharagulyan, Henrik Parsamyan, Ashot Khachatryan, Mkrtich Yeranosyan

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H. Gharagulyan, Y. Melikyan, V. Hayrapetyan, Kh. Kirakosyan, D.A. Ghazaryan, M. Yeranosyan

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**Antibacterial activity of royal jelly-mediated green synthesized silver nanoparticles**

Susanna Gevorgyan, Robin Schubert, Mkrtich Yeranosyan, Lilit Gabrielyan, Armen Trchounian,

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**Zinc Oxide Composites of Doxorubicin in the Form of Coating, Composite Films and Gels with a High Antitumor Activity and Low Toxicity**

Emma R. Arakelova, Stepan G. Grigoryan, Ashot M. Khachatryan, Anahit A. Mirzoian, Zoya M. Farmazyan,

Susanna L. Grigoryan, Mkrtich A. Yeranosyan, Flora G. Arsenyan, Rafayel E. Muradyan,

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**Energy loss rate of hot electrons due to polar-optical phonon modes in a semiconductor nanowire under transverse electric field**

A. Stepanyan, A. Asatryan, M. Yeranosyan, K. Vardanyan, A. Kirakosyan, A. Vartanian

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**Influence of spin-orbit interactions on the polaron properties in wurtzite semiconductor quantum well**

Mkrtich A. Yeranosyan, Arshak L. Vartanian, Karen A. Vardanyan

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**Phonon confinement effect on the polaron states in a double quantum ring structure in the presence of electric and magnetic fields**

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**Effect of Rashba and Dresselhaus spin-orbit interactions on the polaron properties in wurtzite semiconductor quantum dot in the presence of external fields.**

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**Royal Jelly in the Development of Nano-strategies against Pathogenic Bacteria**

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