

Milestone Nanoparticles

FlexiWAVE

References

FL 1

Khafa, S.; Olivieri, L.; Di Nicola, C.; Pettinari, R.; Pettinari, C.; Tombesi, A.; Marchetti, F. Copper and Zinc Metal–Organic Frameworks with Bipyrazole Linkers Display Strong Antibacterial Activity against Both Gram+ and Gram- Bacterial Strains. *Molecules* 28, 6160 (2023).
<https://doi.org/10.3390/molecules28166160>

FL 2

Paut, A.; Guć, L.; Vrankić, M.; Crnčević, D.; Šenjug, P.; Pajić, D.; Odžak, R.; Šprung, M.; Nakić, K.; Marčuš, M.; et al. Plant-Mediated Synthesis of Magnetite Nanoparticles with *Matricaria chamomilla* Aqueous Extract. *Nanomaterials* 14, 729 (2024).
<https://doi.org/10.3390/nano14080729>

FL 3

Tan, E.W.; Simon, S.E.; Numan, A.; Khalid, M.; Tan, K.O. Impact of UV radiation on Mxene-mediated tubulin dissociation and mitochondrial apoptosis in breast cancer cells. *Colloids and Surfaces B: Biointerfaces* 235, 113793 (2024).
<https://doi.org/10.1016/j.colsurfb.2024.113793>

FL 4

Sukidpaneenid, S.; Chawengkijwanich, C.; Pokhum, C.; Isobe, T.; Opaprakasit, P.; Sreearunothai, P. Multi-function adsorbent-photocatalyst MXene-TiO₂ composites for removal of enrofloxacin antibiotic from water. *Journal of Environmental Sciences* 124, 414-428 (2023).
<https://doi.org/10.1016/j.jes.2021.09.042>

FL 5

Katibi, K.K.; Shitu, I.G.; Othman, S.H.; Yunus, K.F.; Ismail, A.F.; Aqmar, N.A.N.K.; Ilias, H.M.B. Development of eco-friendly microwaved chitosan-based nanocomposite membrane for efficient capturing of cationic dyes from aqueous solution: permeability and fouling studies. *Emergent Materials* 7, 999-1018 (2024).
<https://doi.org/10.1007/s42247-024-00664-7>

FL 6

Carrozza, D.; Malavasi, G.; Ferrari, E. Very Large Pores Mesoporous Silica as New Candidate for Delivery of Big Therapeutics Molecules, Such as Pharmaceutical Peptides. *Materials* 16, 4151 (2023).

<https://doi.org/10.3390/ma16114151>

FL 7

Mitar, I.; Guć, L.; Soldin, Ž.; Vrankić, M.; Paut, A.; Prkić, A.; Krehula, S.
Rapid Microwave Method for Synthesis of Iron Oxide Particles under Specific Conditions.
Crystals 11, 383 (2021).
<https://doi.org/10.3390/cryst11040383>

FL 8

Saladino, G.M., Hamawandi, B., Vogt, C. et al.
Click chemical assembly and validation of bio-functionalized superparamagnetic hybrid
microspheres.
Applied Nanoscience 10, 1861–1869 (2020).
<https://doi.org/10.1007/s13204-020-01274-5>

FL 9

Mellinas, C.; Jiménez, A.; Garrigós, M.d.C.
Microwave-Assisted Green Synthesis and Antioxidant Activity of Selenium Nanoparticles
Using Theobroma cacao L. Bean Shell Extract.
Molecules 24, 4048 (2019).
<https://doi.org/10.3390/molecules24224048>

FL 10

Nagarajan, T.; Khalid, M.; Sridewi, N.; Jagadish, P.; Walvekar, R.
Microwave Synthesis of Molybdenum Disulfide Nanoparticles Using Response Surface
Methodology for Tribological Application.
Nanomaterials 12, 3369 (2022).
<https://doi.org/10.3390/nano12193369>

SynthWAVE

References

SY 1

Burdusel, A.-C.; Neacsu, I.A.; Birca, A.C.; Chircov, C.; Grumezescu, A.-M.; Holban, A.M.; Curutiu, C.; Ditu, L.M.; Stan, M.; Andronescu, E.
Microwave-Assisted Hydrothermal Treatment of Multifunctional Substituted Hydroxyapatite with
Prospective Applications in Bone Regeneration.
J. Funct. Biomater. 14, 378 (2023).
<https://doi.org/10.3390/jfb14070378>

SY 2

Chircov, C.; Bîrcă, A.C.; Dănciulescu, L.A.; Neacsu, I.A.; Oprea, O.-C.; Truscă, R.-D.;
Andronescu, E.

Usnic Acid-Loaded Magnetite Nanoparticles - A Comparative Study between Synthesis Methods.
Molecules 28, 5198 (2023).
<https://doi.org/10.3390/molecules28135198>

SY 3

Chircov, C.; Ștefan, R.-E.; Dolete, G.; Andrei, A.; Holban, A.M.; Oprea, O.-C.; Vasile, B.S.; Neacșu, I.A.; Tihăuan, B.
Dextran-Coated Iron Oxide Nanoparticles Loaded with Curcumin for Antimicrobial Therapies.
Pharmaceutics 14, 1057 (2022).
<https://doi.org/10.3390/pharmaceutics14051057>

SY 4

Bessone, F.; Argenziano, M.; Grillo, G.; Ferrara, B.; Pizzimenti, S.; Barrera, G.; Cravotto, G.; Guiot, C.; Stura, I.; Cavalli, R.; et al.
Low-dose curcuminoid-loaded in dextran nanobubbles can prevent metastatic spreading in prostate cancer cells.
Nanotechnology 30, 214004 (2019).
<https://doi.org/10.1088/1361-6528/aaff96>

SY 5

Chircov, C.; Matei, M.-F.; Neacșu, I.A.; Vasile, B.S.; Oprea, O.-C.; Croitoru, A.-M.; Trușcă, R.-D.; Andronescu, E.; Sorescu, I.; Bărbuceanu, F.
Iron Oxide–Silica Core–Shell Nanoparticles Functionalized with Essential Oils for Antimicrobial Therapies.
Antibiotics 10, 1138 (2021).
<https://doi.org/10.3390/antibiotics10091138>

SY 6

Xu, H.; Shen, M.; Shang, H.; Xu, W.; Zhang, S.; Yang, H.-R.; Zhou, D.; Hakkarainen, M.
Osteoconductive and Antibacterial Poly(lactic acid) Fibrous Membranes Impregnated with Biobased Nanocarbons for Biodegradable Bone Regenerative Scaffolds.
Ind Eng Chem Res 60, 12021–12031 (2021).
<https://doi.org/10.1021/acs.iecr.1c02165>

SY 7

Kuzmin, A., Dile, M., Laganovska, K., and Zolotarjovs, A.
Microwave-assisted synthesis and characterization of undoped and manganese doped zinc sulfide nanoparticles.
Mater Chem Phys 290, 126583 (2022).
<https://doi.org/10.1016/j.matchemphys.2022.126583>

 **Discover more scientific articles**

 **eBook - Microwave Chemistry**