



Școala Doctorală de Chimie

TEMATICA PENTRU CONCURSUL DE ADMITERE LA DOCTORAT sesiunea iulie și septembrie 2024

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1. Noi compuși azaheterociclici penta- și hexa-atomici. Sinteze și aplicații (ro)

New penta- and hexa-atomic azaheterocyclic compounds. Syntheses and applications (en)

Bibliografie/References

1. Moise, I.M., Bicu, E., Farce, A., Dubois, J., Ghinet, A., Indolizine-phenothiazine hybrids as the first dual inhibitors of tubulin polymerization and farnesyl transferase with synergistic antitumor activity, *Bioorganic Chemistry*, 103, 104184, **2020**.
2. Zubas, A.; Ghinet, A.; Farce, A.; Dubois, J.; Bîcu, E. Phenothiazine and Carbazole-Cyanochalcones as Dual Inhibitors of Tubulin Polymerization and Human Farnesyltransferase. *Pharmaceuticals*, 16, 888, **2023**.
3. Metwally, N.H., Mohamed, M.S., Ragb, A.E., Design, synthesis, anticancer evaluation, molecular docking and cell cycle analysis of 3-methyl-4,7-dihydropyrazolo [1,5-a]pyrimidine derivatives as potent histone lysine demethylases (KDM) inhibitors and apoptosis inducers, *Bioorganic Chemistry*, 88, 102929, **2019**.
4. Makhaeva, G.F., Lushchekina, N.P., Boltneva, S.V., Novel potent bifunctional carboxylesterase inhibitors based on a polyfluoroalkyl-2-imino-1,3-dione scaffold, *European Journal of Medicinal Chemistry*, 218, 113385, **2021**.
5. Ragab, E.A., Metwally, N.H., Mohamed, M.S., Synthesis of some novel pyrazolo[1,5-a]quinazolines and their fused derivatives, *Synthetic Communications*, 47, 148 – 158, **2017**.

2. Compuși heterociclici formilați. Sinteze, reactivitate și aplicații biologice (ro)

Formylated heterocyclic compounds. Synthesis, reactivity and biological activities (en)

Bibliografie/References

1. Masurier, N., Moreau, E., Lartigue, C., Gaumet, Vincent., Heitz, A., Jean-Claude Teulade, J.-C., Chavignon, O., New Opportunities With the Duff Reaction, *The Journal of Organic Chemistry*, 73(15), 5989–5992, **2008**.
2. Kim, S.-B., Kang, M.-J., Kang, C.-W., Kim, N.-H., Choi, H.W., Jung, H.A., Choi, J.S.; Kim, G.-D., Anti-inflammatory effects of 6-formyl umbelliferone via the NF- κ B and ERK/MAPK pathway on LPS-stimulated RAW 264.7 cells., *International Journal of Molecular Medicine*, 43, 1859–1865, **2019**.
3. Zhu, Y.-R., Lin, J.-H., Xiao, J.-C., Triphenylphosphine/1,2-Diiodoethane-Promoted Formylation of Indoles with *N,N*-Dimethylformamide, *Synlett*, **2022**, 33, 259-263.
4. Saha, S., Bhosle A.-A., Chatterjee, A., Banerjee, M., Mechanochemical Duff Reaction in Solid Phase for Easy Access to Mono- and Di-formyl Electron-Rich Arenes, *The Journal of Organic Chemistry*, 88(14), 10002–10013, **2023**.
5. Shivani, T., Rakhi, M., Avijit, M., Varsha, J., Vilsmeier Haack Reaction: An Exemplary Tool for Synthesis of different Heterocycles, *Letters in Organic Chemistry*, 21(2), 131 – 148, **2024**.

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